Visual Resources / Aesthetics Analysis

PHOTOVOLTAIC SOLAR FARM

P09-012, P09-014, ER No. 09-05-001-RPL2

Prepared for:
County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666
Contact: Patrick Brown, Project Manager

Applicant:
EE Borrego Land, LLC
4660 La Jolla Village Drive, #400
San Diego, CA 92122
Contact: David Tomlinson
Phone 858.638.7115
Direct: 425.747.7190

Prepared by:
RBF Consulting
9755 Clairemont Mesa Boulevard, Suite 100
San Diego, California 92124
Contact: Steve Wragg
Phone: 858-614-5059
Fax: 858-614-5001

RBF JN 25-103821.001
June 2010 (Revised September 2010)

CONSULTANT FOR VISUAL ANALYSES
Alex H. Jewell, AICP, LEED AP

PRIMARY AUTHOR
Nicole Marotz, AICP, LEED AP

TABLE OF CONTENTS

List of Figures

List of Tables

Executive Summary

The Photovoltaic (PV) Solar Farm Project Visual Analysis provides an evaluation of potential Project impacts on existing visual resources and character of the surrounding community of Borrego Springs, California.

With regard to visual resources, the Project would not result in the introduction of features that would significantly detract from or contrast with the visual character of the surrounding community by conflicting with visual elements or quality of an existing area (i.e., through conflicting style, size, coverage, scale, building materials, etc.). The Project would not result in the removal of or substantial adverse change to one or more features that contribute to the valued visual character or image of the Project area, including but not limited to designated landmarks, historic resources, trees, or rock outcroppings. Furthermore, the Project would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, trails within an adopted County or State trail system, scenic vista or highway, or recreational area. The Project as designed would also not result in an inconsistency with any goals, standards, or policies related to visual resources as given in the County General Plan, Desert Subregional Plan, or County Zoning Ordinance.

For the above reasons, it was determined that the Project would not result in potentially significant impacts on visual resources in the Borrego Springs community. As such, no mitigation measures are required or proposed.

1.0 Introduction

1.1 Purpose

The purpose of this Visual Resources / Aesthetics Analysis is to assess the potential visual impacts of the Project, determine the significance of the impacts under CEQA, and to propose measures to avoid, minimize, or mitigate potential adverse visual impacts associated with construction of the proposed Photovoltaic (PV) Solar Farm Project on the surrounding visual environment.

The Project is intended to allow for the installation and operation of a photovoltaic electrical generation facility near the community of Borrego Springs in northeastern San Diego County; refer to Figure 1, Regional/Local Vicinity Map, and Figure 2, Aerial Photograph. The Project represents an opportunity to provide the residents of Borrego Springs and the greater surrounding area with a source of clean energy from renewable sources.

The energy generated by the Project would be transmitted to the existing Borrego Substation, located adjacent to Borrego Valley Road to the west of the Project site (currently operated by San Diego Gas and Electric [SDG&E]), via one of two routes. A small portion of the panels may also be used to provide electricity to the Borrego Valley Airport. As future population growth continues within San Diego County, the demand for electrical service will continue to increase accordingly. During the October 2007 wildfires, as well as other recent wildfire events, many residents within San Diego County experienced temporary shortages in available electrical power, due to the direct and/or indirect result of such fires. The Project represents an additional clean source of electrical power that would supplement energy currently supplied by the existing power grid, thereby reducing the potential for power shortages to occur and decreasing demands on the capabilities of the existing distribution system.

1.2 Key Issues

Key issues to be evaluated in this analysis are whether the Project has the potential to adversely impact the existing visual character or quality of the affected properties and/or the physical or natural surroundings. Potential visual effects are considered from public roadways and other public vantage points in and around the Borrego Springs community. Project design attributes;

the potential to remove, change, or add features that contribute to the existing quality of the visual landscape; and, potential conflicts with applicable plans or policies relating to visual resources are considered.

1.1 Principal Viewpoints to be Covered

The two main parcels comprising the Project site and associated offsite lands where infrastructure improvements would occur would be intermittently visible from a number of principal viewpoints within the Borrego Springs area, as follows:

- Palm Canyon Drive looking east
- Palm Canyon Drive looking west
- Borrego Valley Road looking southeast from north of Borrego Substation
- Looking north from Borrego Valley Airport
- Looking north across the Borrego Valley from ~~State~~ County Route 22 (S22)

Other views may occur from surrounding public vantage points, such as the Anza-Borrego Desert State Park (i.e., Font's Point); Highway 78 (approximately nine miles to the south of the site); views looking southeast from the existing Borrego Substation; and, views looking south from Henderson Canyon Road located north of the Project site.

In addition, limited views to the Project may occur from surrounding residential, industrial, and/or agricultural uses on private lands, but would generally be visually reduced due to intervening vegetation and/or development, as well as distance. The Project site may be visible from public vantage points across the valley to the south and southeast from higher elevations, but such views would be visually reduced due to distance from the site and elevational differences.

2.0 Project Description

2.1 Project Location

The land areas that comprise the Project site are located just east of the community of Borrego Springs, California, within northeastern San Diego County; refer to Figure 1, Regional / Local Vicinity Map, and Figure 2, Aerial Photograph. The land that would be developed with the PV solar panels (approximately 341 acres) is comprised of two main parcels, with additional lands affected to support the transmission of power generated to the existing Borrego Substation, located just east of Borrego Valley Road. The County Assessor Parcel Numbers (APNs) that comprise the Project area for the main facilities include APN 141-230-26 (approximately 288 acres) and a portion of APN 141-230-33. Parcel 141-230-33 totals approximately 104 acres; however, only approximately 53 acres of this parcel would be included in the Project. The remaining (approximately) 51 acres would remain undisturbed and would not be leased by the Project proponent. The 53-acre portion included in the Project would be leased by EE Borrego Land, LLC, or an affiliated company, from the County of San Diego, Department of Public Works, Airport Division to support the intended facilities; refer to Figure 2, Aerial Photograph. EE Borrego Land, LLC, currently has purchase options on APN 141-230-26 and an executed option to negotiate a final lease agreement with the County of San Diego, the owner of APN 141-230-33. Palm Canyon Drive runs east-west to the south of the two parcels, with Borrego Valley Road running just west of the existing Borrego Substation. The Borrego Valley Airport borders the southern border of the approximate 53-acre-lease area.

2.2 Project Description

The Project would involve the construction of a solar energy electrical generation facility to provide electricity for public consumption. The proposed facilities would have an overall capacity of 35-40 MW, a portion of which will serve the Borrego Valley area, with the remaining electricity being sold for distribution elsewhere. The Project would consist of solar generation facilities on the 288-acre parcel and 53-acre-lease parcel. Each facility would consist of an array of solar PV panels, supported on a galvanized metal racking system; refer to Figures 3A and 3B, Major Use Permit Plot Plan, and Figure 3C, Major Use Permit Plot Plan – Elevations/Details. A number of solar panels may also be installed on the 53-acre-lease parcel to provide electricity directly to the Borrego Valley Airport. These panels would be directly connected to the Airport electrical system if their installation was economically and technically viable. Associated improvements would also occur adjacent to the existing Borrego Substation to facilitate transmission of the energy produced.

The photovoltaic panels would be manufactured at an offsite location and transported to the Project site. All panels would be solar glass with an anti-reflective (AR) coating to minimize the potential for glare and/or reflection of sunlight, and would be black in color and highly absorptive; ~~The panels would be made of a thin-film amorphous silicon material covering a glass pane and would be black in color and highly absorptive;~~ refer to Figure 3D, Typical PV Solar Layout. The panels would not contain cadmium or cadmium compounds.

The panel arrays would be oriented along an east-west axis with the panels facing generally to the south. The panels would be ~~racks;~~rack mounted in a two-panel system (one panel mounted above a second panel), measuring approximately 10 to 14 feet in total combined width; refer to Figure 3C, Major Use Permit Plot Plan – Elevations/Details. ~~As such, the~~The total height of the two-panel system measured from ground surface would be approximately eight to ten feet. ~~It should be noted that a three-panel system may be utilized for the Project. Project design will be determined during final engineering.~~ During final engineering and design, a two- or three-panel design may be used depending upon the availability of panels within the market. The height of the panels would be determined during final engineering and would also be based upon design requirements of Borrego Valley Flood Management Plan design and construction criteria. The distance from the ground to the top of the panel system would not exceed a maximum height of 10 feet. –The panels would be tilted at an approximate 30 degree angle, or as otherwise

determined necessary during final Project design, and would therefore be fixed and non-tracking.

The length of each row of panels would be approximately 300 feet along the east/west axis. Beam separation along the row would range from approximately 8 to 14 feet. Spacing between each row along the vertical axis would be approximately 19 to 24 feet center to center. The ultimate arrangement/number of PV solar panels, spacing of supporting racks, and rack pilings are shown in Figures 3B and 3C to illustrate the general configuration of the proposed solar collection system and are subject to modification at final engineering design. A north-south running access road, of minimum 24-foot width and unsurfaced, would be provided approximately every 300 feet between the horizontal rows (approximately 150 feet to either side), per design requirements of the Borrego Springs Fire Protection District.

2.2.1 Racking

Racking refers to the structure that holds the solar PV panels in the proper position for maximum capture of solar energy. For the Project, a combination of galvanized I-beam steel posts or tubular steel posts and channel steel would be used.

2.2.2 Panel Interconnections, Inverters, Distributed Transformers and Switch Gear

Panel arrays would be electrically connected into panel strings using wiring attached to the racking. Panel strings would be electrically connected to each other via underground wiring. Wire depths would be in accordance with local, State, and Federal codes. Gathering lines would connect individual panel array strings to one or more inverters/transformers and combiner boxes. Wiring from the panel strings would be connected to combiner boxes. Electrical current would then be transferred to the inverters which would convert the Direct Current (DC) produced by the PV panels into Alternating Current (AC). A pad-mounted transformer next to the inverter would increase the voltage. The AC would then travel through underground gathering lines to a common utility interconnection point or Project substations.

2.2.3 Project Substations and System Interconnection Points

The Project design includes construction of two onsite substations; refer to Figures 3A and 3B, Major Use Permit Plot Plan. One substation would be located in the northwest corner of the 288-acre parcel. A second substation is proposed at the northwest corner of the approximately 53-acre lease parcel (APN 141-230-33).

The proposed substations would include transformers, breakers, switches, meters, and related equipment. Each substation would also contain a control room approximately 12 by 20 feet with an overall height of less than 15 feet. The overall footprint of each Project substation would be approximately 150 feet by 90 feet, with various supporting equipment installed within this footprint. Overall height of each substation would be approximately 35 feet in height at the apex.

2.2.4 Inverter Enclosures

Approximately 38 small-scale, aboveground structures would be constructed within the solar panel fields to weatherize inverter/distributer transformers and switching gear. These structures would be approximately 12 feet by 26.5 feet in size, and 12 feet in height at the apex, and constructed on a level concrete building pad; refer to Figure 3C, Major Use Permit Plot Plan – Elevations/Details. The structures would be constructed of non-flammable materials (i.e., steel) with a metal roof. Each structure would be designed with screened ventilation provided on the roof to allow for the circulation of air for cooling purposes. The AC generated would be transferred from the inverters via underground gathering lines to the Project substations.

2.2.5 Transmission Facilities

Two options are available for transferring the energy generated from the solar energy facility. The northern transmission route would be constructed within an existing 20-foot SDG&E-owned utility right-of-way which extends from the Borrego Substation eastward to the 288-acre parcel and 200-foot arc. The southern transmission route would run underground south from the 53-acre lease parcel to an existing transmission line located along Palm Canyon Drive. The route would then travel west aboveground to Borrego Valley Road, then north to the existing Borrego Substation; refer also to Figure 2, Aerial Photograph.

Northern Transmission Route

For the northern transmission route, one new 69kV and one new 12 kV transmission line would be installed within an existing 20-foot SDG&E utility right-of-way and 200-foot utility access easement that runs along the southern boundary of several adjacent parcels to the west (Sections 26 and 27) and includes a 200- foot arc of land extending southwest from the intersection of Sections 26, 27, 34, and 35. The 12kV line would run underneath the 69 kV line. The poles would be approximately 50 feet in height and spaced approximately 250 feet apart. The transmission lines would extend westward aboveground for approximately one mile from the proposed Project substation on the 288-acre parcel to the Borrego Substation.

Pole installation for the northern route would be accomplished by advancement of holes into the soil using a truck-mounted auger. Poles would then be raised to the vertical position and lowered into place. Alternatively, cement foundations would be installed and steel poles would be permanently affixed to the cement foundations.

Stringing of the conductor (wires) would be accomplished by first attaching rollers to the lower end of the pole insulators. The rollers would allow the individual conductors to be pulled through each structure until the conductors are ready to be pulled to the final tension position. Crews would access each pole by pick-up truck and/or bucket truck along the easement right-of-way. Lay down areas for equipment would be identified prior to commencing construction activities to ensure that no unplanned grading or vegetation removal is required.

Conductor pull and tension sites would be located at both the Project site and the Borrego Substation. The pull and tension sites would be approximately 40 feet wide by 100 feet long.

After the conductors are pulled into place, wire or conductor sags would be adjusted to a pre-calculated level. Vibration dampers and other accessories would then be installed, as needed. Conductors would be transported to the Project site via reel trailers with reel stands.

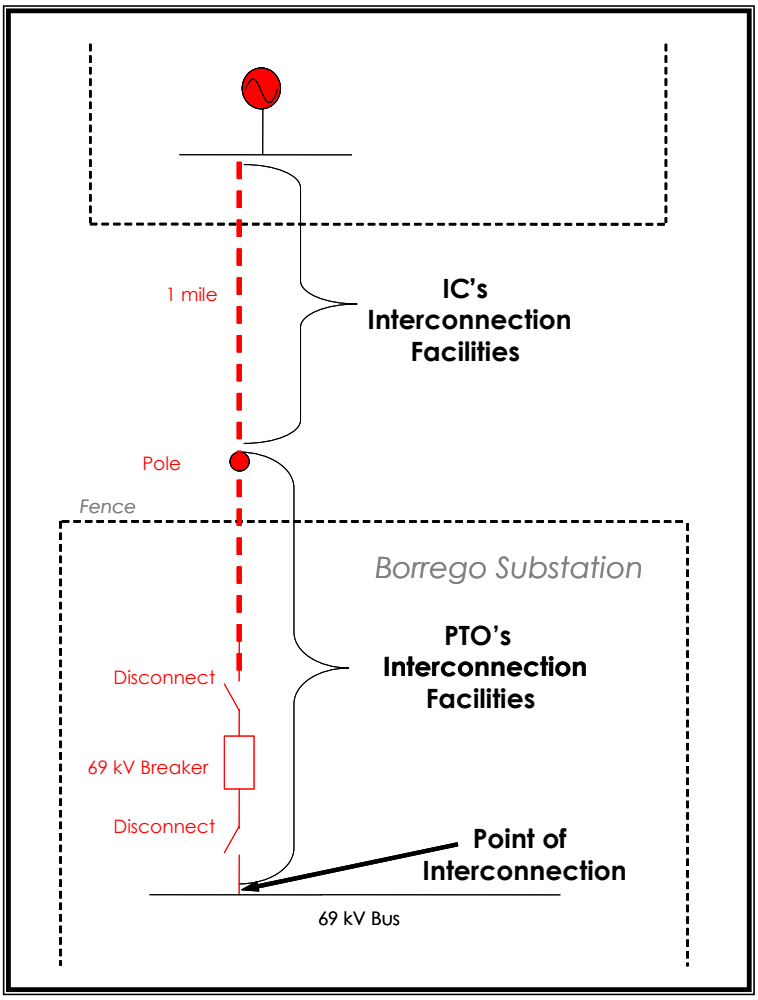
Northern Transmission Line Ownership

Selection of the northerly transmission route would require the applicant to obtain easement agreements from SDG&E and/or the property owners of the adjacent lands. The "interconnection facilities" are defined as the facilities and equipment owned, controlled, or operated by SDG&E from the Point of Interconnection to the Point of Change of Ownership; refer to Diagram A, below. The Point of Interconnection would occur at the 69 kV bus in the

Borrego Substation and the existing 12kV rack (busbar). All Project-installed transmission facilities would be under the ownership of SDG&E.

As the transmission facilities along the northern route would not be under the ownership of EE Borrego Land, LLC, as they are not considered as part of the MUP application; however, the lands affected by the proposed transmission facilities along the northern route must be included in the environmental analysis conducted for the Project to address potential impacts and provide mitigation, as appropriate, consistent with CEQA requirements.

DIAGRAM A: INTERCONNECTION FACILITIES – SCHEMATIC LAYOUT



Southern Transmission Route

For the southern transmission route, one new 69kV line and one new 12 kV transmission line would be installed underground within an easement running from the proposed substation on the 53-acre-lease parcel southward approximately 0.25 mile to Palm Canyon Drive. The

easement would be located within the existing access road, west of the Borrego Valley Airport Building Restriction Line (BRL). The lines would then run west aboveground for approximately one mile to the intersection of Palm Canyon Drive and Borrego Valley Road. The 69 kV line would be installed on top of the existing poles, with the existing 12 kV line and the new 12 kV line installed underneath. To accommodate these lines, the existing poles along Palm Canyon Drive would be removed and replaced with new poles approximately 45 feet in height. Spacing of the new poles would remain similar to that which presently exists (approximately 235 feet apart).

From the intersection of Palm Canyon Drive and Borrego Valley Road, the lines would then run north along the east side of Borrego Valley Road for approximately one mile to the Borrego Substation where a connection to the existing facilities would occur. To accommodate the new transmission lines, the existing poles (approximately 40 feet in height) would be extended five feet. The poles would then support the new 69 kV and 12 kV lines associated with the Project, along with the existing 69 kV line and two 12 kV lines that are present. The existing poles along Borrego Valley Road are spaced approximately 170 feet apart.

Pole installation for the southern transmission route would be accomplished by using methods similar to those used for the northern route. Trenching would be required to underground the transmission lines from the 53-acre lease parcel to Palm Canyon Drive.

Stringing and pulling of the conductor would occur in a manner similar to that described above for the northern transmission route. Lay down areas for equipment would be identified prior to commencing construction activities to ensure that no unplanned disturbance or vegetation removal is required.

Southern Transmission Line Ownership

Similar to the transmission facilities along the northern route, the offsite transmission facilities along the southern transmission route would be owned by SDG&E. As such, these facilities would not be under the ownership of EE Borrego Land, LLC, or its affiliates and are therefore not considered as part of the MUP application; however, the lands affected by the proposed transmission facilities along the southern route have been included in the environmental analysis conducted for the Project to address potential impacts and provide mitigation, as appropriate, consistent with CEQA requirements.

Telecommunication Facilities

Telecommunication lines would be installed to allow for supervisory control and data acquisition (SCADA) between the Borrego Valley Substation and the Project. Telecommunication lines would also be placed underground southwards to access which telecommunication lines located along either Borrego Valley Road or Palm Canyon Drive to allow remote monitoring and communication.

The Project would also require up to four meteorological data collection systems, two for each point of interconnection. The systems would be mounted at various locations onsite and would collect data pertaining to global horizon irradiance, ambient temperature, PV back panel temperature, wind speed and direction, precipitation, barometric pressure, relative humidity, and visibility, among other information.

2.2.6 Improvements at the Existing Borrego Substation

The Project would require limited improvements at the existing Borrego Substation to allow for the transmission of electrical power. These improvements would occur within an approximately 0.82-acre expansion area (approximately 100-130 feet wide by 200 feet in length) to the south of the existing Borrego Substation facilities and adjacent to Borrego Valley Road; refer to Figure 3E, SDG&E Borrego Substation – Proposed Expansion Area.

Interconnection facilities to be installed with the Project within the expansion area include one steel pole (to be located outside of the Borrego Substation fence); conductor and insulators from the pole to a new 69kV termination rack (busbar) to be placed in the expansion area; two breakers; two disconnect switches; and, associated protection and control equipment for security purposes. An 8-foot chain-link fence topped with 3-strand barb wire would be installed along the perimeter of the expansion area. All fencing installed with the Project would be "breakaway" fencing to ensure that the fence gives way in the event of a flood, thereby eliminating potential obstruction of the flow of floodwaters and associated debris.

Substation Ownership

The Borrego Valley Substation is presently owned and operated by SDG&E. All modifications to the Substation would be owned by SDG&E, and the offsite transmission facilities along the southern transmission route would be owned by SDG&E, as noted above. As such, these

facilities would not be under the ownership of EE Borrego Land, LLC, or its affiliates, and are therefore not considered as part of the MUP application; however, construction and operation of the proposed transmission facilities have been included in the CEQA analysis.

2.2.7 Grading

As stated above, the solar PV panels would be installed in an east-west orientation in parallel rows; refer to Figure 3D, Typical PV Solar Layout. Although the majority of land surface on the two affected parcels is generally flat, limited portions of the 288-acre parcel and the 53-acre lease parcel would be graded to provide a ground surface that can adequately accommodate the PV solar panels. Grading on these two parcels would require an estimated 107,000 cubic yards (c.y.) of balanced cut and fill. The remainder of these two parcels would be cleared and grubbed to allow for installation of the panels and associated facilities.

Limited clearing and grubbing would be required for the expansion area at the Borrego Substation site. Grading is estimated to range between approximately 300 to 800 c.y. of balanced cut and fill over the 0.82-acre area to create a level building pad for installation of the proposed facilities. Variation in grading quantities for the expansion area is due to whether the facilities would be constructed on a building platform raised on piers, or on the ground surface (building pad one foot above 100-year flood line).

In order to control dust during the life of the Project, a non-toxic, biodegradable, ~~-~~permeable soil-binding agent or permeable rock material will be applied to all disturbed or exposed surface areas as follows: a) A permeable soil-binding agent suitable for both traffic and non-traffic areas shall be used. These agents shall be biodegradable, eco-safe, with liquid copolymers that stabilize and solidify soils or aggregates and facilitate dust suppression; or, b) Alternatively, a permeable rock material consisting of either river stone decomposed granite or gravel could be placed in a thin cover over all exposed surface area in-lieu of the binding agent referenced above. In-lieu of, or in combination with a) and b) above, the areas located between the solar arrays, and any non-drivable surface may be revegetated with native noninvasive plant species. The binding agent would be reapplied approximately every two years for maintenance purposes. ~~The binding agents would be suitable for both traffic and non-traffic areas. Binding agents such as PolyPavement require a single initial application and periodic maintenance every 2-3 years. These agents are biodegradable, eco-safe, liquid copolymers that stabilize and solidify soils or aggregates and facilitate dust suppression. Once applied to the soil, the copolymer molecules coalesce forming bonds between the soil particles. These materials are commonly used on non-~~

~~paved service roads, golf course paths, dirt bike tracks, helicopter landing areas, etc. Alternatively, a permeable rock material consisting of either river stone decomposed granite or gravel would be placed in a thin cover over all exposed surface areas for the purposes of dust and erosion control.~~

2.2.8 Lighting and Glare

Limited Project lighting would be installed to allow for ongoing maintenance and security. Low-level lighting would be installed at the main entry gates to the 53-acre lease parcel, as well as at each of the substations. Lighting would be placed on poles of 15 feet or less in height or attached directly onto the exterior wall of the structure and would be 200 watts or less (total combined per each location). Low-level lighting would also be installed at the main entry gate to the expansion area to facilitate access.

All Project lighting would be operated manually or activated via motion sensors. All Project lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent ownerships and/or open space lands. All lighting would conform to County of San Diego outdoor lighting requirements.

2.2.9 Signage

Minimal Project signage is proposed to allow for the identification of the Project owner and for safety and security purposes. Signage is proposed to be installed on the fence in the vicinity of the main entry gates of the 53-acre-lease parcel. Signage would identify the Project operator and owner as EE Borrego Land, LLC, and would provide emergency contact information. All signage would conform to County of San Diego signage requirements for the applicable zone. No freestanding signage is proposed as part of the Project.

In addition, small-scale signage would be posted at the main entry gates, as well as intermittently along the perimeter fencing on all exterior parcel boundaries, to indicate "No Trespassing" and "Private Property" for security purposes (does not include the shared boundary between the southerly 53-acre-lease parcel and the northerly 288-acre parcel), as allowed by County regulations.

2.2.10 Access / Circulation

Construction Access

All materials for Project construction would be delivered to the sites by truck. The majority of truck traffic would occur on designated truck routes and/or major streets (i.e., Palm Canyon Drive and Borrego Valley Road). Traffic resulting from construction activities would be temporary and may occur along area roadways as workers and materials are transported to and from the Project area.

Long-Term Access

Long-term access to the 53-acre lease/288-acre parcels would be provided from Palm Canyon Drive via an existing access road that extends north to the western boundary of the 53-acre lease parcel. The Project applicant has entered into an Option to Lease and Access Agreement with the County of San Diego Department of Public Works (Airports) which will allow for long-term access rights across the Borrego Valley Airport property on an as-needed basis. Project-related vehicles will briefly cross the Airport Approach/Departure Zone to access the Project. The existing access road ranges from 12 to 16 feet in width and is surfaced with decomposed granite (d.g.). County Airports and the Borrego Springs Fire Protection District have indicated that the existing access road will provide adequate emergency access to the Project site, and no additional improvements are required or proposed.

Interior access to the main Project site would be provided by a looped 24-foot wide perimeter road. This road would be all-weather and surfaced with decomposed granite (d.g.) and would be maintained to provide a fire buffer as well as to facilitate onsite circulation for emergency vehicles. In addition, on the 53-acre lease and 288-acre parcels, a system of internal roadways, approximately 24 feet in width and unsurfaced, would be provided along the north-south access approximately every 300 feet between the east-west running rows of PV panels (approximately 150 feet to either side).

Borrego Valley Road runs adjacent to the west of the existing Borrego Substation. The roadway is a two-lane surfaced roadway and provides access to the east-west SDG&E transmission easement (northern transmission route). No improvements are proposed to Borrego Valley Road or to the existing easement to provide access to the proposed (future) transmission facilities.

Access to the proposed expansion area at Borrego Substation would be from Borrego Valley Road via the existing gravel driveway. A portion of the existing perimeter fencing would be removed along the southern boundary of the Borrego Substation facilities and a gate installed to provide access to the expansion area; refer to Figure 3E, SDG&E Borrego Substation – Proposed Expansion Area.

2.2.11 Project Schedule / Phasing

The Project may be implemented in several phases. The sequence for development of the two parcels would largely be influenced by contractual agreements, and the interconnection between each of the phases and the existing and proposed transmission facilities at the time construction of each phase commences. With consideration for anticipated phasing of the Project, construction is expected to begin by fall of 2010. The proposed facilities are expected to be operational in 2011.

It is anticipated that overall construction of the Project would take approximately 10 months to complete, with crews working six days per week, 10 or more hours per day. Up to 150 employees would be working onsite at the peak of construction. Local labor would be utilized to the extent possible. It is estimated that approximately 30% of the labor force may be obtained locally.

Depending on local permit requirements, some activities may occur during evening, night, and/or weekend hours, due to the scheduling of system outages and/or construction needs. Construction would commence following County of San Diego approval of permits and other entitlements, final engineering, and procurement activities.

2.2.12 Trails

The Project design includes provision of one easement to allow for future construction of recreational trails, consistent with County requirements. Pursuant to the adopted Borrego Springs Community Trails and Pathways Plan, the Project proposes dedication of a 15-foot trail easement along the northern and western boundary of the 288-acre parcel to allow for future construction of a trail. The Project does not propose to provide improvements for trail construction at either of these locations at this time. In addition, the Project Proponent has received a letter from County Department of Parks and Recreation (dated November 18,

2009), indicating that no trail improvements or easement dedications are required within the Palm Canyon Drive right-of-way.

2.3 General Plan Land Use Designations and Zoning

General Plan land use designations and zoning for the affected parcels are given in Tables 1 and 2, below. No changes to either the existing General Plan land use or zoning are proposed with the Project.

TABLE 1
EXISTING GENERAL PLAN LAND USE / REGIONAL CATEGORY

Assessor Parcel Number	Approximate Acreage	General Plan Land Use Designation	Regional Category
141-230-26	288	(18) Multiple Rural Use	Rural Development Area (RDA)
141-230-33	104*	(18) Multiple Rural Use	Country Town (CT)
141-210-01 (Borrego Substation)	5	(18) Multiple Rural Use	Rural Development Area (RDA)

* The Project would be limited to 53 acres of the 104-acre parcel.

TABLE 2
EXISTING ZONING

Assessor Parcel Number	Approximate Acreage	Zoning
141-230-26	288	General Rural Use (S92)
141-230-33	104*	Rural Residential (RR 25)
141-210-01 (Borrego Substation)	5	General Rural Use (S92)

* The Project would be limited to 53 acres of the 104-acre parcel.

2.3.1 Anticipated Permits and Agency Approvals Required

The County of San Diego will act as the Lead Agency under the requirements of the California Environmental Quality Act (CEQA). Approval from the County of San Diego would be required for grading and construction permits, as well as for right-of-way encroachment

permits, if applicable, prior to commencement of ground-disturbing activities. The anticipated permits and approvals required are listed in Table 3 in the general order in which they would be obtained.

TABLE 3
APPROVALS AND PERMITS ANTICIPATED

Permit/Approval	Approving Agency
Major Use Permits	County of San Diego – Department of Planning and Land Use
Grading Permit(s)	County of San Diego – Department of Public Works
Federal Aviation Administration (FAA) Form 7460-1 Notice of Proposed Construction or Alteration Permit	Federal Aviation Administration – Received
General Construction Storm Water Permit	San Diego Regional Water Quality Control Board (RWQCB)

2.4 Surrounding Land Use

The Project area is located in the Borrego Valley, which is in the desert region of northeastern San Diego County. The Anza-Borrego Desert area is part of the larger Colorado Desert. The Borrego Sink is located approximately four miles southeast of the Project area, and the Borrego Badlands are approximately five miles to the east.

The 53-acre-lease parcel is bordered on the north by the 288-acre parcel. To the north and east of these parcels is undeveloped land; to the south is the Borrego Valley Airport; to the west are a commercial palm nursery, and a small-scale commercial sand and gravel yard. A microwave tower is also adjacent to the southwest corner of the 288-acre parcel.

Land uses to the south across Palm Canyon Drive generally include undeveloped lands interspersed with industrial type and residential uses. Refer also to Figure 2, Aerial Photograph.

The Borrego Substation is bordered to the west by Borrego Valley Road. Immediately adjacent to the north, east, and south are undeveloped lands. Further to the southeast and south are several single-family homes with intervening undeveloped/unimproved lands. Further west, across Borrego Valley Road, are agricultural-related facilities, and to the northwest are active agricultural lands.

2.5 Regulatory Framework

2.5.1 State of California Guidelines

The Project is subject to technical and environmental review pursuant to the California Environmental Quality Act (CEQA), in conformance with applicable regulatory guidelines established by the County of San Diego.

Appendix G of the CEQA Guidelines states that a project has the potential for a significant impact if it will:

a) Have a substantial adverse effect on a scenic vista;

b) Substantially damage scenic resources, including, but not limited to: trees, rock outcroppings, and historic buildings within a state scenic route;

c) Substantially degrade the existing visual character or quality of the site and its surroundings; or,

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views of the area.

In addition, CEQA Section 15064 (b) states "…the significance of an activity may vary with the setting … an activity which may not be significant in an urban area may be significant in a rural area." This statement is applicable to the determination of the significance of a visual effect for the Project.

2.5.2 San Diego County Plans and Policies

San Diego County General Plan

The County of San Diego General Plan is intended to provide guidance for the long-term development of San Diego County. The General Plan includes various Elements that address different aspects of growth, including accommodating population growth and housing needs, while influencing the distribution of development in order to protect scarce resources wisely; preserving the natural environment; providing adequate public facilities and services efficiently

and equitably; assisting the private sector in the provision of adequate, affordable housing; and, promoting the economic and social welfare of the region. Goals, policies and objectives are provided within each of the Elements to guide future land development and ensure consistency with the County's intended vision for the future of San Diego County.

San Diego County General Plan, Scenic Highway Element, Part VI

The County of San Diego General Plan includes a Scenic Highway Element. This Element is intended to enhance and protect resources of scenic, historic, and recreational value within both rural and scenic highway corridors. The Scenic Highway Priority List utilizes the following criteria in classifying roadways:

- Routes traversing and providing access to major recreational, scenic or historic resources;
- Routes traversing lands under the jurisdiction of public agencies;
- Routes supported by significant local community interest; and,
- Routes offering unique opportunities for the protection and enhancement of scenic recreational and historic resources.

Routes that meet two or more of these criteria are identified as first priority routes within the General Plan. If two criteria are met, routes are classified as second priority. Routes meeting one criterion are classified as third priority.

With regard to the Project, no scenic roadways are located adjacent to or within close proximity to the site; however, the Project would potentially be visible from Highway 78, a County Scenic Highway, located approximately nine miles to the south. State Route 78 from the western to the eastern boundary of the Anza-Borrego Desert State Park is an existing official Scenic Highway, as identified in the Scenic Highway Element of the General Plan. In addition, Old Overland Stage Route (S2) from the Imperial County line north to State Route 78 and Montezuma Valley Road, Hoberg Road, and Truckhaven Trail (S22) from the western boundary of the Anza-Borrego Desert State Park to the Imperial County line are also designated as official Scenic Highways. Due to the distance of these vantage points from the Project, views of the site would be minimized and would occur intermittently from vehicles traveling along the roads.

Conservation Element (April 2002)

Soil Policy 7 – The County will seek to implement a grading ordinance that will protect public health and safety, protect property, and conserve the visual character of the land.

As stated above, although the majority of land surface on the two main parcels is generally flat, limited portions of the 288-acre parcel and the 53-acre lease parcel would be graded to provide a ground surface that can adequately accommodate the PV solar panels. Grading on these two parcels would require an estimated 107,000 c.y. of balanced cut and fill. The remainder of these two parcels would be cleared and grubbed to allow for installation of the panels and associated facilities.

As such, Project grading requirements would be minimal, and no significant changes to the visual character of the landscape are anticipated as a result.

San Diego County Zoning Ordinance

Portions of the County Zoning Ordinance that may affect the assessment of visual impacts are generally zoning overlay designators. Relevant designators include:

- B – Community Design Review Area
- D – Design Review Area
- G – Sensitive Resource
- H – Historic/Archaeological Landmark or District
- J – Special Historic District
- S – Scenic Area

None of the above designators apply to the Project site or other associated lands affected by Project-related infrastructure improvements (i.e., transmission line routes or Borrego Valley Substation).

2.5.3 Design Policies and Guidances

Desert Subregional Plan (Part XXI)

The Desert Subregional Plan is supplemental to the County General Plan and provides goals and policies to guide development of this area of northeastern San Diego County, including the community of Borrego Springs.

6. Conservation

Policies and Recommendations

2. Preserve the dark night sky as a natural resource enjoyed by residents and visitors to the desert. Dark sky is also essential to the effective operations of the nearby observatories.

As previously stated, exterior lighting for the Project would be limited to that required for maintenance and security purposes, thereby minimizing potential impacts on the dark sky. All Project lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent ownerships and/or open space lands. All lighting would conform to County of San Diego outdoor lighting requirements. It should be noted that the proposed use represents a relative decrease in the amount of potential light pollution produced, as compared to if the 53-acre-lease parcel or the 288-acre parcel were developed with residential uses, as allowed by the existing Multiple Rural Use designation.

3.0 Visual Environment of the Project

3.1 Project Setting

3.1.1 Solar Generation Facilities

The 288-acre parcel and 53-acre-lease parcel are presently undeveloped. Vegetation on these parcels largely consists of desert saltbush scrub and stabilized and partially stabilized desert dunes, with sparse groundcover consisting of a mixture of Mediterranean grass and mustard. Soil types found on the affected parcels also generally support bur-sage, saltbush, and annual grasses and forbs. Some native wildflower species occur intermittently, with a number of dead mesquite trees also present in various onsite locations on the parcels. Refer to Figures 4 through 8 which show existing onsite and offsite conditions.

The Project area and the Borrego Valley in general are underlain by Quaternary alluvium. The vast majority of the Project area is mapped as Indio silt loam, 0 to 2 percent slopes; and Indio silt loam, saline, 0 to 2 percent slopes; with pockets of Rositas fine sand, 0 to 2 percent slopes; and Rositas fine sand, hummocky, 5 to 9 percent slopes.

The overall topography is generally descends gradually from northwest to southeast across the region. Although the topography of the Project area is generally flat, there are a series of low dune ridges with hummocky areas throughout. Elevations on the 53-acre lease parcel generally range from approximately 519 feet above mean sea level (amsl) to 538 feet amsl and approximately 529 feet amsl to 554 feet amsl on the 288-acre parcel.

There are no channels or indications of linear flow on the affected parcels, including in the lowest areas between the ridge-like dunes. Coyote Creek is located to the east of the Project area.

The average January low temperature for the area is 38° Farenheight; the average July high temperature is 106° Farenheight. Average annual rainfall for the Borrego Springs area is approximately 6.3 inches.

3.1.2 Transmission Facilities

The proposed transmission routes would generally follow property boundaries, existing paved or unimproved dirt roads and other areas where human activity has occurred. All routes would connect to existing SDG&E facilities or run within existing or proposed easements; refer to Figure 2, Aerial Photograph. These lands support similar vegetation as the 288-acre parcel and 53-acre-lease parcels, with generally level topography.

3.1.3 Surrounding Land Uses

The Project area is located in the Borrego Valley, which is in the desert region of northeastern San Diego County. The Anza-Borrego Desert area is part of the larger Colorado Desert. The Borrego Sink is approximately four miles southeast of the Project area, and the Borrego Badlands are approximately five miles to the east.

The 53-acre-lease parcel is bordered on the north by the 288-acre parcel. To the north and east of these parcels is undeveloped land; to the south is the Borrego Valley Airport; to the west are a commercial palm nursery and a small-scale commercial sand and gravel yard. A microwave tower is also adjacent to the southwest corner of the 288-acre parcel. It should be noted that a number of parcels generally to the west/southwest of the 288-acre parcel and the 53-acre lease parcel have a General Plan Land Use designation of Limited Impact Industrial or General Impact Industrial. Refer also to Figure 2, Aerial Photograph; Figure 6, Surrounding Land Uses, and Figures 7 and 8, Existing Views of Surrounding Land Uses.

Land uses to the south across Palm Canyon Drive generally include undeveloped lands interspersed with industrial type and residential uses. Refer also to Table 4, Lands Potentially Affected by the Project.

The Borrego Substation is bordered to the west by Borrego Valley Road. Immediately adjacent to the north, east, and south are undeveloped lands. Further to the southeast and south are several single-family homes with intervening undeveloped/unimproved lands. Further west, across Borrego Valley Road, are agricultural-related facilities, and to the northwest are active agricultural lands.

TABLE 4
LANDS POTENTIALLY AFFECTED BY THE PROJECT

APNs Affected	Approx. Acreage (in acres)	General Location	Current Onsite Land Use / Characteristics	Surrounding Land Uses	Future Facilities Considered
141-230-26	288	North of Palm Canyon Drive	Undeveloped / Salt Brush Scrub Habitat	Large-scale agricultural use (nursery) to the west / Undeveloped	Solar Panels / Associated Transmission Facilities
141-230-33	104*	North of Palm Canyon Drive	Undeveloped / Salt Brush Scrub Habitat	Borrego Valley Airport to the south / Undeveloped	Solar Panels / Associated Transmission Facilities
Offsite Facilities					
141-210-01 Borrego Substation (Existing)	5	North of Palm Canyon Drive / East of Borrego Valley Road	Borrego Substation / Undeveloped / Salt Brush Scrub Habitat	Two single-family residential uses to the south and southeast (40 acre parcels) / Limited agricultural uses to the southwest / Undeveloped	Transmission Facilities (Proposed Connection to Borrego Substation)

The Project would be limited to 53 acres of the 104-acre parcel.

3.1.4 Visual Quality Definitions

Visual quality is affected by the aesthetic characteristics of a particular area. Such aesthetic elements may include physical characteristics, as well as the perception of the viewer. Physical characteristics influencing the visual quality of an area may include such features as topography, landform, natural vegetation, water bodies, visual diversity, and visible coloring. Viewer perception is generally influenced by vividness, intactness, harmony, visual integrity, adjacent scenery, and/or visual unity. These elements all influence the overall evaluation of the quality of a particular view.

Areas with high visual quality may offer physical characteristics such as varying vertical relief; established natural vegetation with visually pleasing form, color, texture or pattern; water features; or, other elements that create a visually unified landscape. Particular views with high visual quality may include those with distinct focal points or patterns; enhanced or existing

natural scenery; compatibility with the character of the surrounding landscape; and/or, a unique visual setting within the surrounding area.

Moderate visual quality is generally considered to be represented by views that are interesting, but not visually exceptional with regard to landforms or other physical characteristics. Such views may consist of dominant types of vegetation; water features; colors within the landscape; or, other elements that visually unify a particular view or landscape. Contributing factors may include a varied composition that includes visual patterns created by landscape elements; enhancement of views from adjacent scenery; and/or, a visual setting that is distinguishable from, as well as visually similar to, views within the surrounding area.

Low visual quality may be represented by areas with limited or no existing landforms or changes in topography; sparse or indiscernible vegetation types, due to density; absence of water features; monotonous color palettes; or, limited visual elements of varying visual interest. Visual quality may be considered to be low if views are varied, but visually disconnected; lack perceivable visual patterns; are adjacent to views that devalue the existing scenic quality; or, do not generally represent a visual setting that is common and/or valued within the surrounding area.

3.1.5 Baseline Visual Environment

The two main parcels comprising the Project and the associated lands affected by the associated improvements are located within the Borrego Valley. The valley is defined by a series of mountains at varying distances from Project, allowing for a range of views to the valley floor below. The 288-acre and 53-acre lease parcels are further defined by the Borrego Valley Airport and surrounding undeveloped lands.

3.2 Project Viewshed

The viewshed is generally the area that is visible from an observer's viewpoint and includes the screening effects of intervening vegetation and/or physical structures. Viewsheds may occur from designated scenic viewpoints or from singular vantage points where an unobstructed view of visual components within the landscape exists. The viewshed is composed of such elements as topography and natural land features (i.e., hillsides, mountains) and other physical features within the landscape, such as buildings, vegetation, water features. Potential visual impacts within the viewshed may be affected by distance of the viewer from a site, the frequency and

length of views, the personal perception of the viewer, and physical and/or atmospheric conditions at the time viewing occurs.

The Project site is located along the Borrego Valley floor which is visible from numerous vantage points that occur from the surrounding mountains. As such, the viewshed is generally defined by the surrounding mountainous topography which encircles the valley floor. Although this area is expansive, consideration of this viewshed provides the most comprehensive (largest) and conservative (worst-case) estimate of the area that could potentially be affected by the proposed Project. Refer to Figure 9, Viewshed/Landscape Unit Location Map, which shows the viewshed in the area surrounding the Project.

Within the viewshed, varied views of the Borrego Valley largely occur from vehicles as they descend (or ascend and look back to the valley) along the winding roads that lead to and from Borrego Springs; passengers in vehicles traveling within the Anza Borrego State Park, and visitors utilizing the trails or other recreational facilities within the Park; and, passengers in vehicles traveling along area roadways. The viewshed includes the developed areas of Borrego Springs and the surrounding, low-density development and undeveloped lands along the valley floor, generally bounded by the Santa Rosa Mountains. Due to the generally flat topography of the valley floor and the limited, low-lying vegetation typical of a desert environment, few elements within the landscape restrict views across the expansive valley from surrounding vantage points within the viewshed; however, distance from the object being viewed and intervening geological features have the potential to reduce or restrict views.

Figure 9, Viewshed/Landscape Unit Location Map, shows the general limits of the viewshed and the landscape units considered within the viewshed as part of this analysis. To characterize the visual pattern elements that occur within the Project viewshed, a number of key view locations across the valley were identified and representative photographs taken. The locations of these representative photos are identified in Figures 10A and 10B, Key Viewpoint Location Map(s), and are shown in Figures 11 through 17. Key viewpoints are described in detail in Section 5.2, Key Views. Key vantage points within the viewshed offering views across the valley occur from ~~State~~ County Route 22 (S22) to the southwest of the Project site (Figure 15); Font's Point to the southeast of the Project site (Figure 16); and, Highway 78 to the south of the Project site (Figure 17), as described further below.

3.2.1 ~~State~~ County Route 22 (Montezuma Valley Road)

Views of the Borrego Valley occur looking northeast from northbound ~~State~~ County Route 22 (S~~R~~22); refer to Figure 15, View 5 (Visual Simulation) – ~~State~~ County Route 22 (Montezuma Valley Road), which shows the existing view. Viewers from this location would mainly be passengers in vehicles traveling in either direction along ~~State~~ County Route 22.

Views are generally defined by the Santa Rosa Mountains to the north and west. Varied views of the Borrego Valley occur from this roadway as vehicles descend (or ascend and look back to the valley) along the winding road. Views of the Borrego Valley below are intermittent and would generally be uninterrupted unless existing landforms interfere, although distance from Borrego Valley minimizes the visual details of the landscape. Existing views occur across the Borrego Valley and consist of developed areas within Borrego Springs, surrounding undeveloped lands, and the varying mountains in the background.

It should be noted that, similar to S22, County Route 3 (S3) is an area roadway that provides views across the valley as it traverses the mountains of the Anza Borrego Desert State Park from its intersection with SR 78 south of Borrego Springs, then trends across the valley floor in a generally north-south direction to where it terminates at its intersection with S22 at Christmas Circle.

A detailed analysis of public views from S22 as one travels down the mountains into the valley is provided within this Visual Analysis; refer also to Figure 15. In addition, similar views from Highway 78 looking down across the valley were also analyzed herein; refer also to Figure 17. These views are considered to be representative of similar views (and impacts) that would occur from S3 looking across the valley.

As S3 is not designated as a scenic route in the County of San Diego General Plan Scenic Highway Element and is not shown as a designated trail on the County's adopted Community Trails and Pathways Plan for the Borrego Springs area, a detailed analysis of views from this road was not conducted as part of the Visual Analysis. Although views to the Project site would occur at various vantage points along this roadway, the proposed Project would not substantially damage scenic resources within a State scenic route.

From S3, views of the Project site would occur at a distance; however, similar to views from S22 and Highway 78, distance from the site, combined with the height and scale of the proposed Project elements, would reduce the visibility of the Project within the landscape. In addition,

from locations on S3 along the valley floor, intervening vegetation and existing development would also reduce views of the Project site, thereby minimizing its visibility.

For the above reasons, the Project would not substantially damage scenic resources within a State scenic route or substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, a trail within an adopted County or State trail system, a scenic vista or highway, or a recreational area. Impacts with regard to S3 would be similar to those experienced along S22 or SR 78 in that they would be less than significant, and no mitigation measures are required.

3.2.2 Anza Borrego Desert State Park / Font's Point

Views from Font's Point across the valley occur within the Anza-Borrego State Desert Park; refer to Figure 16, View 6 (Visual Simulation) – Anza-Borrego Desert State Park/Font's Point, which shows the existing view. Viewers from this location would mainly be passengers in vehicles traveling within the State Park, or visitors utilizing the trails or other recreational facilities within the Park.

Views are generally defined by the Santa Rosa Mountains to the north and west. Varied topography and geological features are visible in the foreground with expansive views of the valley floor in the middle ground. Developed areas of Borrego Springs, surrounding undeveloped lands, and a variety of geological and topographical features also occur in the background.

3.2.3 Highway 78

Highway 78 is generally located approximately 8-9 miles to the south of the community of Borrego Springs; refer to Figure 17, Views 7, 8, and 9 – Other Offsite Public Views, which shows the existing views. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Highway 78.

Views are generally defined by the Santa Rosa Mountains to the north and west, and consist of the expansive valley floor. Limited geological and topographical features are visible within the middleground, as well as in the background. In addition, limited low-lying scrub vegetation provides minimal screening effects.

3.3 Landscape Units

A landscape unit is an area that can generally be defined by visual and physical characteristics and may be composed of a limited area (i.e., meadow) or a larger area (i.e., portion of a mountain range). The overall boundaries of a landscape unit may generally be defined by topography, natural vegetation, architectural design, landforms, or similar types of land uses. Each landscape unit can be described individually and as varying from other adjacent landscape units. Each landscape unit is a portion of the regional landscape that often corresponds to a place or district that is commonly know among local viewers. As the Project would affect a number of properties within the valley with installation of the PV solar panels and associated transmission facilities, several landscape units that may potentially be affected by construction of the proposed facilities were identified. Landscape Units are shown in Figure 9, Viewshed/Landscape Unit Location Map, and described below.

3.3.1 Landscape Unit #1

Landscape Unit #1 generally consists of the floor of the Borrego Valley. Outside of the Borrego Springs community, the valley floor is generally characterized by undeveloped lands and lands with very low-density development (typically one- to two-story single-family residential uses) on large-acre parcels. This Landscape Unit supports established vegetation typical of the desert environment, including low-lying desert saltbush scrub and stabilized and partially stabilized desert dunes, with sparse groundcover and annual grasses. This Landscape Unit is generally bounded to the north, east, and west by the Santa Rosa Mountains that rise from the valley floor. As much of the vegetation and topography are similar throughout this area, landscape components do not generally offer strong, visually distinctive patterns to viewers, particularly when viewed at a distance; refer also to Figures 11 to 13.

3.3.2 Landscape Unit #2

Landscape Unit #2 consists of Font's Point which is a visible and well-known geological element that rises approximately 1,200 feet above mean sea level (amsl) from the valley floor. Font's Point is located within the Anza-Borrego State Park and, from the upper reaches, offers a 360-degree panorama of the northern half of Anza-Borrego Desert. From Font's Point, along the southern horizon are views of the Fish Creek, Vallecito, and Pinyon Mountains; in the

middle distance, are the twin buttes of Borrego Mountain; and, in the foreground are the San Felipe Wash, Sleepy Hollow, and Borrego Sink.

This Landscape Unit supports visual components that combine in distinctive visual patterns and provide topographical and visual contrast with regard to adjacent lands and the valley floor. Vegetation is generally low-lying, limited, and typical of the arid desert environment; refer also to Figure 16.

3.3.3 Landscape Unit #3

Landscape Unit #3 consists of the Santa Rosa Mountains, which generally bound the valley floor to the west, north, and east. The Santa Rosa Mountains are a short peninsular range east of Los Angeles and northeast of San Diego in southern California. The mountains extend for approximately 30 miles through Riverside, San Diego, and Imperial Counties along the western side of the Coachella Valley. The southern end of the range west of the Salton Sea is within the northwest corner of the expansive Anza-Borrego Desert State Park.

This Landscape Unit supports varied topographical components that combine in unique patterns to offer visual diversity and contrast with adjacent lands and the valley floor. Vegetation is generally low-lying scrub vegetation, with few significant stands of natural vegetation; refer also to Figures 14 to 16 which show the mountains in the background.

3.3.4 Landscape Unit #4

Landscape Unit #4 is represented by the large-acre lands actively utilized for agriculture, generally located to the north of the community of Borrego Springs. This Landscape Unit is generally bounded by the Santa Rosa Mountains to the west, north, and east, and by the more developed areas of Borrego Springs to the south. Topography within this Landscape Unit is relatively flat, due to its use for agricultural production. Lands within this Unit visually contrast with the surrounding arid desert environment with regard to the type and color of vegetation they support; refer to Figure 9.

3.3.5 Landscape Unit #5

Landscape Unit #5 consists of the Borrego Valley Airport. The Airport is located just north of Palm Canyon Drive and represents a commonly-known and recognizable visible element within

the Borrego Springs community and the valley landscape. This Landscape Unit is generally defined by Palm Canyon Drive to the south, the landing strip, and the supporting operational facilities. The limits of the property are fenced, creating a visible boundary.

Structural elements associated with the Airport are generally low-lying, one- to two-story buildings with simple architectural features and colors. As the majority of the site is paved (parking lot, runway, etc.), limited natural vegetation or manicured landscaping is visible; refer to Figure 14.

Views from this location would mainly be experienced by visitors to and employees of the Borrego Valley Airport, those traveling along adjacent roadways, and from vantage points overlooking the valley. This Landscape Unit offers minimal topographical differences as compared to adjacent lands. Existing views from this Landscape Unit are of the airport facilities and include the hangars, runway, parking areas, and Airport operations building/restaurant. The majority of the range of views consists of paved areas with little or no landscaping. Views of the mountains occur in the background.

3.3.6 Other Landscape Units

Other visible and locally recognized landscape units occur within the more developed areas of Borrego Springs and along the valley floor. Such landscape units are represented by Christmas Circle [see Figure 9 - LU #6 (Inset)], the Rams Hill development, and the Club Circle Golf Course/Borrego Springs Country Club, among others; however, due to area topography (which is generally flat), intervening development and vegetation within the landscape, or distance, the Project site would not visible from these locations. As such, although such landscape units are recognized as contributing to the overall character of the community, they were not analyzed further herein for their potential to be affected by the proposed PV solar project.

4.0 Existing Visual Resources and Viewer Response

4.1 Existing Visual Resources

The lands affected by the Project are generally lacking in significant visual resources. The 288-acre parcel and the 53-acre lease parcel do not contain any County-defined steep slopes (defined as having a slope with a natural gradient of 25 percent or greater and a minimum rise of 50 feet) or other significant topographical features. Although the topography of the Project area is generally flat, there are a series of low dune ridges with hummocky areas throughout the 288-acre parcel and the 53-acre lease parcel. Refer to Figure 2, Aerial Photograph, and Figures 4 and 5 which show the existing onsite conditions.

No prominent natural drainage features occur on any of the affected parcels. No rock outcroppings are present on any of the lands affected by the Project.

In addition, the two main parcels affected by the Project offer minimal vegetative habitat of aesthetic value. Vegetation on these parcels largely consists of desert saltbush scrub and stabilized and partially stabilized desert dunes, with sparse groundcover consisting of a mixture of Mediterranean grass and mustard. Some native wildflower species occur intermittently, with a number of dead mesquite trees also present in various onsite locations on the parcels.

4.1.1 Visual Character/Visual Quality

The dominant visual character of the Project site is that of generally level topography with typical desert saltbush scrub vegetation. Areas of varied topography and desert dunes occur within the interior; however, from offsite public vantage points, this characteristic is not readily noticeable. The two main parcels affected by the Project are generally disturbed and/or undeveloped, with no existing structural elements. Similarly, the area affected by the improvements at the Borrego Substation is generally level topography with typical desert saltbush scrub vegetation. Components of the existing Borrego Substation are visible within the landscape.

Landscape Unit #1

Landscape Unit #1 consists of the floor of the Borrego Valley which generally supports undeveloped lands and lands with low-density development on large-acre parcels. This Landscape Unit is largely defined by undeveloped lands supporting established vegetation typical of the desert environment, including desert saltbush scrub and stabilized and partially stabilized desert dunes, with sparse groundcover and annual grasses.

As the majority of lands within the valley are generally undeveloped, few built components within this Landscape Unit contribute to a sense of bulk or mass. Visual color is generally unvaried and consists of earthtoned, natural components (sand, native grasses, etc.). As such, lands within this Landscape Unit generally do not create a strong visual pattern.

This Landscape Unit does not offer strongly contrasting landscape components that combine to form striking or distinctive visual patterns, and therefore, a memorable visual impression is generally not created. The landscape is largely free from encroachment of competing visual elements, due to the nature of the topography and existing vegetation, and is therefore visually intact. A sense of visual unity is achieved, as components combine to form a generally visually coherent pattern.

Landscape Unit #2

Landscape Unit #2 consists of Font's Point, located within the Anza-Borrego State Park. This geologic feature is readily visible within the landscape and supports varied visual components that combine in distinctive visual patterns. This geologic feature represents an element of greater bulk, scale, and mass, as compared to its immediate surroundings within the valley. Visible colors of Font's Point vary depending on the particular features being viewed and the time of day, but generally range from earthtoned to dusty pinks and reddish browns.

This Landscape Unit offers landscape components that create a distinctive visual impression and sense of vividness. When viewed in conjunction with the Santa Rosa Mountains, a sense of visual unity is achieved with the surrounding landscape components, creating a unified, coherent visual pattern.

Landscape Unit #3

Landscape Unit #3 consists of the Santa Rosa Mountains, which generally bound the valley to the west, north, and east. The topography of this Landscape Unit offers visual forms with varied visual bulk, mass, and shape. Colors are also varied, based upon viewing distance to the forms, sunlight and time of day, and texture of the surfaces. The mountains create a sense of visual dominance within the valley and offer a visually diverse pattern of elements within the landscape. This Landscape Unit supports landscape components that combine in distinctive visual patterns and provide visual contrast to other surrounding lands and the valley floor.

This Landscape Unit offers a sense of vividness and creates a memorable visual impression through varied geologic forms, particularly when influenced by sunlight. The Santa Rosa Mountains offer a unified and generally coherent visual pattern with few encroaching elements as they rise from the valley floor.

Landscape Unit #4

Landscape Unit #4 is represented by the concentrated, large-acre lands actively utilized for agriculture generally to the north of the community of Borrego Springs; refer to Figure 9. Topography within this Landscape Unit is visually flat, due to its use for agricultural production, creating a pattern with limited variation. Limited elements with visual bulk, dominance, or scale occur within this landscape. Lands within this Unit are generally similar with regard to color, due to the vegetation they support.

The components within this Landscape Unit do not offer a high degree of visual contrast, due to the nature of the agricultural lands, and therefore, do not combine to create distinctive visual patterns. The landscape has a moderate degree of intactness, as it is generally free from competing visual elements. In addition, a sense of visual unity is evident, as the landscape components join together to generally form a coherent visual pattern.

Landscape Unit #5

Landscape Unit #5 consists of the Borrego Valley Airport. As the structures are generally low-lying (one to two stories), they do not represent elements of significant mass, bulk, or scale within the landscape. Colors are generally of neutral hues (grays, blues, etc.), with limited visual diversity or texture, or notable architectural features.

The features of the Airport do not create a memorable visual pattern or impression, and instead represent fairly utilitarian components. Due to the location of the Airport and the largely undeveloped lands within proximity, the Airport does not create a sense of unity with surrounding landscape components or contribute to a harmonious visual pattern.

4.2 Viewer Response

Viewer response is based on both viewer sensitivity and viewer exposure. These elements influence how a viewer may potentially respond to a change in the visual landscape, particularly with regard to development of a site from a generally undeveloped condition. Viewer response varies based upon the type of viewer and the characteristics of the visual environment that would ultimately be affected (i.e., urban versus rural environment, established large-scale commercial area versus low density residential uses, etc.). Viewer response is largely influenced by viewer sensitivity and viewer exposure, as described in greater detail below. Figure 6, Surrounding Land Uses, identifies surrounding land uses and their approximate distance to the Project.

4.2.1 Viewer Sensitivity

Viewer sensitivity to a change in the visual environment can be influenced by a number of factors, including the awareness of the viewer, personal interest in a particular visual resource, and/or viewer activity during the time that views of a resource occur (i.e., vehicle driver versus passenger, active versus passive viewing). In addition, the particular goals or values of a community can influence the sensitivity of viewers to a particular site, land area, or viewshed. Viewer sensitivity may vary between those with a vested interest in a community (i.e., residents) versus those traveling through an area with little or no knowledge of the community or existing visual landscape. Based on these conditions, viewer sensitivity can be assigned a value of low, medium, or high.

It is likely that community members would be more sensitive to the Project than would those who experienced Borrego Springs as a tourist. In addition, viewer sensitivity may be higher among those who would experience views of the site more frequently, such as area residents or employees of the Borrego Valley Airport who would travel along Palm Canyon Drive or Borrego Valley Road on a daily basis. As views of the Project components would also vary due to distance from the site, as well as travel speed and the degree to which one chooses to make an

effort to view the site (e.g. turning of one's head), viewer sensitivity would further be influenced.

4.2.2 Viewer Groups

Viewer groups would mainly consist of those individuals traveling east/west along Palm Canyon Drive and north/south along Borrego Valley Road. Additional viewer groups from public vantage points would include employees and visitors of the Borrego Valley Airport, as well as travelers along other public roadways, particularly S~~R~~22 and Highway 78. Visitors to the Anza-Borrego Desert State Park would also experience views to the site from varied vantage points within the Park.

Additional viewer groups may include residents and/or occupants viewing the Project site from several surrounding residential uses to the east/northeast, southwest; agricultural uses to the west/northwest; and/or, limited commercial/industrial-type uses along Palm Canyon Drive; however, such views of the Project from these vantage points would generally occur from privately-owned properties and not public viewpoints. Views from these private ownerships would generally occur at a distance from the Project and would be decreased due to distance, topographical differences, and intervening vegetation and development.

4.2.3 Viewer Exposure

Views into the Project site from vehicles traveling along Palm Canyon Drive and Borrego Valley Road would vary, but would be limited and brief, due to travel speeds and the angle of the view with respect to the viewer (i.e., forward-looking versus turning one's head and looking back towards the subject property). Views of the site from other public roads at greater distances (i.e., Highway 78, S~~R~~22, etc.) would also occur. Viewer exposure from these roadways would vary, due to distance from the site, intervening topography and vegetation, and length of time the Project is actually visible from a particular location along the road.

In determining the exposure of each viewer group, several factors are considered. These include the number of viewers experiencing visual changes to the resource as the result of the proposed development, how long views would last, the anticipated speed at which viewers would be traveling, and the relation and distance of the viewer to the particular site.

Table 5, Viewer Groups and Anticipated Exposure, summarizes the anticipated viewer groups and the potential viewing experience of each.

TABLE 5
VIEWER GROUPS AND ANTICIPATED EXPOSURE

Anticipated Viewer Group	Number of Anticipated Viewers	Key Views	Distance to the Project Site	Anticipated Views with Project Implementation	Sensitivity	Duration of View
Drivers along Palm Canyon Drive	Estimated more than 1,000 people per day	#1 and #2	Close to Moderate Distance / Approximately 1.5 and 1.2 miles, respectively	Intermittent views of solar panels and associated infrastructure / transmission lines	Medium	Estimated 30-60 seconds
Drivers along Borrego Valley Road	Estimated 100 to 200 people per day	#3	Close to Moderate distance / Approximately 1.7 miles	Intermittent views of solar panels and associated infrastructure / transmission lines	Medium	Several seconds
Occupants of Borrego Valley Airport	Estimated 100-200 people per day	#4	Close Distance / Approximately 0.2 miles	Direct views of Project site and adjacent land uses	Medium	Average of 10 hours per day
County ~~State~~ Route 22 (S~~R~~22)	Estimated more than 1,000 people per day	#5	Far Distance / Approximately 4.7 miles	Varied land uses (Borrego Springs and surrounding land areas)	Low	Varied
Anza-Borrego Desert State Park / Font's Point	Estimated 100 to 500 people per day (depending on season)	#6	Far Distance / Approximately 6.2 miles	Varied land uses (Borrego Springs and surrounding land areas)	Low	Varied

4.2.4 Viewer Awareness

Viewer response is affected by the degree to which a viewer is receptive to visual details, character and quality of the surrounding landscape. A viewer's perception is affected by his/her activity and the degree to which he/she actively participates in noticing a change in the visual environment.

Viewer awareness to potential visual changes in the setting that may occur with the Project would be varied. A viewer would first need to be in a location within the surrounding area where the Project site was visible (e.g. from a higher elevation), then actively notice that a change in the visual landscape has occurred. Viewer awareness would also vary between local residents and those who are experiencing the area as a tourist, wherein the local residents would likely be more aware of a change in the visual environment. In addition, viewer awareness would also vary due to distance from the proposed facilities, as views occurring at a greater distance would diminish the visibility of the Project components within the landscape.

5.0 Visual Impact Assessment

5.1 Guidelines for Determining Significance

The California Environmental Quality Act (CEQA) Guidelines define "environment" to include "objects of…aesthetic significance (Section 15360)." As such, the County of San Diego has identified thresholds of significance to assess potential impacts resulting from proposed development.

The following significance guidelines are intended to provide guidance in the evaluation of whether a significant impact to visual resources would occur as a result of project implementation. A project will generally be considered to have a significant effect if it proposes any of the following:

- Introduction of features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines;

- Removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings;

- Substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, a trail within an adopted County or State trail system, a scenic vista or highway, or a recreational area; or,

- The project would not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's zoning.

5.2 Key Views

Several key views of the Project site from surrounding public vantage points were identified for the Project; refer to Figures 10A and 10B, Key Viewpoint Location Map(s), and Figures 11 through 17, which illustrate existing and proposed views of lands affected by the Project. As

described below, views of the Project from these vantage points would be limited by distance from the site, travel speeds, angle of the view (i.e., looking directly to the site or turning one's head to look back to the site), topography, and intervening natural vegetation and/or land uses.

5.2.1 Key View #1 – Palm Canyon Drive

Key View #1 is the view of the Project site looking northeast along Palm Canyon Drive to the Project site; refer to Figure 11, View 1 (Visual Simulation) – Palm Canyon Drive, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Palm Canyon Drive.

From this vantage point, views of the Project site are brief and intermittent, due to established natural vegetation along the roadway, intervening land uses, travel speeds, and distance to the Project site. Views largely consist of low-lying natural vegetation and relatively level topography in the foreground, with mountains of varying elevation in the background. The existing visual landscape does not offer memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low. The upper portion of the PV solar panels on the two main parcels would be visible from this location, along with the utility poles along Palm Canyon Drive. Although views to the site would change as one travels along the roadway, views of the PV solar panels from Key View #1 would be limited, and viewer response to the visual change in the landscape is anticipated to be low. In addition, as similar utility poles are currently present along Palm Canyon Drive, and those installed with the Project would not be substantially greater in height or character, viewer response to visual changes in the poles is also anticipated to be low. As such, views of Project features that would detract from or contrast with the existing visual character and/or quality of the area would not occur, and impacts would be less than significant.

5.2.2 Key View #2 – Palm Canyon Drive

Key View #2 is the view of the Project site looking northwest along Palm Canyon Drive to the Project site; refer to Figure 12, View 2 (Visual Simulation) – Palm Canyon Drive, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Palm Canyon Drive.

From this vantage point, views of the Project site are brief and intermittent, due to established natural vegetation along the roadway, intervening land uses, travel speeds, and distance to the

Project site. Similar to Key View #1, views largely consist of low-lying natural vegetation and relatively level topography in the foreground, with mountains of varying elevation in the background. The existing visual landscape does not offer memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low. A limited portion of the PV solar panels on the 288-acre parcel and the 53-acre lease parcel would be visible from this location. The utility poles along Palm Canyon Drive or along the northern transmission route would not be visible from this location, due to distance. Although views to the site would change as one travels along the roadway, views of the PV solar panels from Key View #2 would be very limited, and viewer response to the visual change in the landscape is anticipated to be minimal. As such, views of Project features that would detract from or contrast with the existing visual character and/or quality of the area would not occur, and impacts would be less than significant.

5.2.3 Key View #3 – Borrego Valley Road / Borrego Substation

Key View #3 is the view of the Project site looking southeast to the site from the existing Borrego Substation refer to Figure 13, View 3 (Visual Simulation) – Borrego Valley Road/Borrego Substation, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Borrego Valley Road.

From this vantage point, views of the Project site are limited due to distance from the site, intervening topography and established land uses, and natural vegetation. Views generally consist of low-lying natural vegetation and relatively level topography in the foreground, with limited trees of varying height along the west side of Borrego Valley Road. The existing utility poles along Borrego Valley Road are visible, and views to mountains of varying elevation occur in the background. The existing visual landscape does not offer memorable landscape components or distinctive visual patterns, and therefore, visual quality and character are considered to be low. No views of the PV solar panels on the 288-acre parcel or 53-acre lease parcel would occur from this location, nor would the utility poles along Palm Canyon Drive be visible. Views of the utility poles installed with the Project along the SDG&E easement would be visible from this viewpoint; however, as views of the Borrego Substation and existing utility poles presently occur from this vantage point, it is not anticipated that installation of poles along the SDG&E easement would significantly heighten viewer response or detract from the existing visual quality or character. As such, views of Project features that would contrast with the

existing visual character and/or quality of the area are not anticipated, and impacts would be less than significant.

5.2.4 Key View #4 – Borrego Valley Airport

Key View #4 is the view of the Project site looking northwest/northeast to the site from the Borrego Valley Airport refer to Figure 14, View 4 (Visual Simulation) – Borrego Valley Airport, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be visitors and employees of the Borrego Valley Airport.

Views of the Project site from this vantage point are uninterrupted, due to the adjacency of the Airport to the Project site, minimal intervening natural or ornamental vegetation, and limited topographical differences. Existing views from this viewpoint are of the airport facilities and include the hangars, runway, parking areas, and Airport operations building/restaurant. The majority of the range of view consists of paved areas with little or no landscaping. Views of the mountains occur in the background. Due to the function of the Airport, views from this vantage point are generally considered to be of low visual quality and character, with little or no memorable landscape components, and no visual harmony or coherence with surrounding lands. As views of the PV solar panels on the 288-acre parcel and 53-acre lease parcel would be very limited, considered in combination with existing views of the airport facilities, viewer response to the visual change resulting with the Project is anticipated to be low. Similarly, views of the poles along the northern transmission route would be very limited, due to distance from the proposed route and the height of the poles within the landscape. As such, installation of the PV solar panels and associated facilities would not significantly detract from or contrast with the existing visual character and/or quality of the area, and impacts would be less than significant.

In addition, the potential for the proposed Project to result in glare effects that would create hazardous conditions for airport operations or detract from or contrast with the existing visual quality of the area was considered. The potential effects of solar panel glare were analyzed by the Federal Aviation Administration (FAA) for the installation of a 4-megawatt PV solar power generation array adjacent to Denver International Airport (DIA) in Colorado in 2006. A number of tests were performed to analyze glare effects, such as placing sample PV solar panels at different installation locations and at variable angles. No glare was noted by observers in any of the panel orientations. An aerial observation was also conducted. Reflectivity of the panels was measured four times per day, concluding that 96 percent of the sun's light was absorbed by the panels, and that the light reflected was dispersed. Since the panels were installed in August

2008, no complaints have been filed with DIA with regard to glare effects from the panels. A similar PV solar panel project was installed on the Express Hub at the Fresno Airport in Fresno, California. The project involved installation of flat plate PV modules and PV modules that capture and concentrate sunlight onto a solar cell which allow only reflected light from heat. No adverse effects from glare on airport operations have been reported.

Other similar solar panel projects throughout the U.S. and globally have been installed near airports with no impacts on flight operations with regard to glare. Such locations include the Munich Airport in Germany; the Love Field Airport in Prescott, Arizona; and, the San Francisco, California Airport. Additional PV solar studies considered in this visual analysis for the proposed Project included the Panoche Valley Solar Farm Project Glint and Glare Study (Panoche Report)[1] and a Technical Memorandum provided by SunPower Corporation, (SunPower Report)[2], both of which concluded findings of no significant adverse effects with regard to glare generated by PV solar panels. Refer also to the Land Use Compatibility Analysis prepared for the proposed Project (revised September 2010) for more in-depth discussion with regard to potential glare effects (available under separate cover).

In addition, the applicant has submitted FAA Form 7460-1, Notice of Proposed Construction or Alteration, and in response has received from the FAA a determination of "No Impact" for installation of the proposed facilities. Based on the above discussion and findings for glare effects of similar solar PV panel installations, potential Project-related glare effects for viewers from the Borrego Valley Airport, as well as surrounding vantage points, are anticipated to be none to minimal, and no significant impacts would occur.

Based on the technical evidence evaluating the reflectivity of the solar PV solar panels, the proposed Project would not install highly reflective building materials that would result in a substantial increase in light or glare that would affect the surrounding area or that would produce reflective light that would create adverse disability or discomfort glare. The proposed Project is in accordance with the County's Guidelines of Determining Significance for Lighting and Glare. The slight increase in glare resulting from the Project would be a less than significant impact.

---

[1] Panoche Valley Solar Farm Project Glint and Glare Report, prepared by Power Engineers, May 10, 2010.

[2] SunPower Corporation Technical Notification #T09014, Solar Module Glare and Reflectance, dated September 29, 2009.

In addition, to ensure that potential glare impacts are minimized with regard to operations at the Borrego Airport, the County will enforce certain design and operational standards. These standards will require that all light fixtures or light sources be installed so as to comply with the rules and regulations of the FAA or other appropriate agencies governing height, type, and placement of lights that may affect the safety of aircraft operations into, from, and around the Airport. Refer also to the Land Use Compatibility Analysis that was prepared for the proposed Project (revised September 2010) for additional discussion regarding glare effects (available under separate cover).

5.2.5 Key View #5 – ~~State~~ County Route 22 (Montezuma Valley Road)

Key View #5 is the view of the Project site looking northeast to the site from northbound ~~State~~ County Route 22 (S~~R~~22); refer to Figure 15, View 5 (Visual Simulation) – ~~State~~ County Route 22 (Montezuma Valley Road), which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling in either direction along ~~State~~ County Route 22.

Varied views of the Borrego Valley occur from this roadway as vehicles descend along the winding road. Views of the Borrego Valley (and the Project site) below are intermittent. Although views of the site would generally be uninterrupted when existing landforms do not interfere, such views occur at a moderate distance from Borrego Valley, thereby minimizing details within the landscape. Existing views from this vantage point are across the Borrego Valley and consist of developed areas within Borrego Springs, surrounding undeveloped lands, and the varying mountain ranges in the background. Although views of scenic value occur at various locations along the roadway, due to distance and associated lack of visual detail or coherence of the landscape components, visual quality and character are reduced. As views of the PV solar panels from this roadway would be limited, viewer response to the visual change resulting with the Project is anticipated to be low. Similarly, views of the utility poles installed along the southern or northern transmission routes would be generally nonexistent, due to the height and scale of the poles and other more visibly noticeable features within the landscape that would attract a viewer's attention. As such, installation of the PV solar panels and associated facilities would not significantly detract from or contrast with the existing visual character and/or quality of the community, and impacts would be less than significant.

5.2.6 Key View #6 – Anza Borrego Desert State Park / Font's Point

Key View #6 is the view of the Project site from Font's Point within the Anza-Borrego State Desert Park located to the southeast of the Project; refer to Figure 16, View 6 (Visual Simulation) – Anza-Borrego Desert State Park/Font's Point, which shows existing and proposed views from this vantage point. Viewers from this location would mainly be passengers in vehicles traveling within the State Park, or visitors utilizing the trails or similar recreational facilities within the Park.

Views from this vantage point occur at a distance from the Project and are generally composed of views across the valley floor, with the developed areas of Borrego Springs, surrounding undeveloped lands, and a variety of geological and topographical features within the foreground (State Park) and in the background. Views from this vantage point are generally considered to be of medium visual quality and character. Unique features within the landscape are visible, and an established visual pattern and compositional harmony created by such elements within the foreground and distanced within the landscape. Although visible, views of the PV solar panels on the 288-acre parcel and 53-acre lease parcel would be limited from this vantage point, due to the distance from the Project and the relative height and size of Project-related features. As such, viewer response to the visual change in the landscape is not considered to be high. Similarly, views of the utility poles installed along the southern or northern transmission routes would be generally nonexistent, due to the height and scale of the poles and other more visibly noticeable features within the landscape that would attract a viewer's attention. Installation of the PV solar panels and associated facilities would not significantly detract from or contrast with the existing visual character and/or quality of the area, and impacts would be less than significant.

5.2.7 Key Views #7 and #8 – Highway 78

Key Views #7 and #8 are the views to the Project site from Highway 78, generally located approximately 8-9 miles to the south; refer to Figure 17, Views 7, 8, and 9 – Other Offsite Public Views. Viewers from this location would mainly be passengers in vehicles traveling in either direction along Highway 78.

Views from this vantage point occur at a distance from the Project and are generally composed of views across the valley floor. A variety of geological and topographical features would be

visible within the foreground, as well as in the background. Views from this vantage point are generally considered to be of medium visual quality and character. Views of the PV solar panels on the 288-acre parcel and 53-acre lease parcel, as well the proposed utility poles along Palm Canyon Drive or within the SDG&E easement, would generally be obscured from sight from this vantage point, due to the distance from the Project and the relative height and size of Project-related features. As such, viewer response to the visual change in the landscape is considered to be low. Installation of the PV solar panels and associated facilities would not significantly detract from or contrast with the existing visual character and/or quality of the area, and impacts would be less than significant.

5.2.8 Key View #9 – Henderson Canyon Road

Key View #9 is the view to the Project site from Henderson Canyon Road, located approximately two miles to the north of the Project site; refer to Figure 17, Views 7, 8, and 9 – Other Offsite Public Views. Viewers from this location would mainly be passengers in vehicles traveling east-west along the roadway.

Views from this location would occur at a distance from the Project and would generally across of the valley floor. Few topographical features would be visible within the foreground; the mountains would be visible in the background. Views from this vantage point are generally considered to be of medium visual quality and character. Views of the PV solar panels on the 288-acre parcel and 53-acre lease parcel, as well the proposed utility poles along Palm Canyon Drive or within the SDG&E easement, would generally be obscured from sight from this vantage point, due to the distance to the Project and the low-lying nature of the proposed facilities. As a result, viewer response to the visual change in the landscape with the Project is considered to be low. Installation of the PV solar panels and associated facilities would not significantly detract from or contrast with the existing visual character and/or quality of the area, and impacts would be less than significant.

5.3 Assessment of Visual Character and Visual Quality

5.3.1 Assessment of Visual Character

288-Acre Parcel / 53-Acre Lease Parcel / Gen-Tie Routes

Natural landforms, natural vegetation, and a mixture of agricultural, industrial, small-scale commercial, and single-family residential uses, as well as large parcels of undeveloped land exist in the area surrounding the Project; however, such visual components would generally not be adversely affected by the proposed development. The Project has been designed to minimize grading requirements and would preserve approximately 17 acres of the 288-acre/53-acre lease parcel in permanent open space, allowing existing vegetation and topography in this area to remain in its natural state.

The Project would change the composition of the visual pattern in the existing onsite setting. The onsite physical character (i.e. presence of native vegetation, colors, visual diversity) would be altered with installation of the solar panels and associated facilities; however, with consideration of varied views to the site from offsite properties and travelers along nearby public roadways, the visual changes resulting from the Project would not dominate or substantially change the existing visual pattern of the area, nor would the Project incorporate elements that would substantially obstruct or diminish existing views; refer also to Figures 11 to 17 which illustrate views of the Project from surrounding public vantage points.

As previously stated, similar industrial and commercial uses exist in the surrounding area and support structural elements of similar or greater size, height, and/or appearance (i.e. Borrego Valley Airport, communications tower, sand and gravel operation, etc.). As visibility of the site would be limited due to distance of the facilities from public roadways an adverse change to the overall visual pattern character through the introduction of elements that would create visual dominance or scale is not anticipated with the Project.

In addition, installation or replacement of utility poles along Palm Canyon Drive and Borrego Valley Road (southern transmission route), or along the SDG&E utility easement (northern transmission route), would also not significantly change the existing visual character, as such elements presently exist within the surrounding landscape, and would not represent a new

visual feature that would appear substantially different from existing conditions. The visual pattern character presently represented by the utility poles along the roadways would remain similar with implementation of the Project. The utility easement is an existing easement, intended to support SDG&E transmission facilities. Installation of utility poles within the SDG&E easement, which generally traverses undeveloped lands, would not significantly change the visual character of the landscape, as the structural elements (poles and transmission lines) would be of limited bulk, mass, and scale, and views would generally occur from a distance.

The Project would also change the composition of the visual pattern of views from the Borrego Valley Airport. Installation of the solar panels and associated facilities would be visible to those occupying or flying into/out of the Airport; however, it is not anticipated that such changes would visually dominate or substantially change the existing visual pattern of the area; refer also to Figure 14 which illustrates views of the Project from the Airport. As the proposed Project elements would be low-lying within the landscape, they would not substantially obstruct or diminish existing views.

Improvements at Borrego Substation Expansion Area

The Project would result in the installation of similar utility components adjacent to the existing Borrego Substation site. As the proposed facilities would be similar in nature to that which presently exists, a significant change in the existing visual character of the landscape would not occur. Construction would occur on the site, and would generally be limited in visibility to surrounding parcels. The onsite physical character would be altered with installation of the transmission facilities; however, with consideration of varied views to the site from offsite properties and travelers along Borrego Valley Road, the visual changes resulting from the Project would not dominate or substantially change the existing visual pattern of the area, nor would the facilities obstruct or diminish existing views.

As such, the Project design would not substantially change the visual character of the surrounding landscape.

5.3.2 Assessment of Visual Quality

The visual quality of a view is partially influenced by the viewing location from which public views occur. The viewing location can allow for views that are generally either expansive in nature or focused on a specific view of a site or particular feature within the landscape. In

addition, visual quality is influenced by the particular characteristics of the viewing corridor within which a view occurs. Visual quality is also affected by the quality of the overall viewshed area being viewed. Areas identified as having high visual quality are those which are identified as being sub-regionally important and possessing high scenic value.

288-Acre Parcel / 53-Acre Lease Parcel / Gen-Tie Routes

The visual quality of Project lands would be potentially affected during the construction phase of the Project. Views of the site would include grading and construction activities, presence of construction vehicles and workers, and storage of building materials. Existing vegetation would provide some visual screening of the site; however, construction impacts on visual quality would be temporary and short-term, and would ultimately be reduced when construction is complete. Once construction is completed, no other changes to the visual landscape would occur, as no other development or improvements are proposed, and no landscaping would be installed that would mature over time, thereby potentially altering views to the Project.

Views of the 288-acre parcel and 53-acre lease parcel from Palm Canyon Drive and Borrego Valley Road are limited. These sites present a landscape that is generally visually intact, but due to the nature of the onsite vegetation and the visual character of adjoining lands, are generally not considered to have a strong visual harmony with adjacent lands. Visual diversity on these properties is generally low, with limited elements or features that disrupt or dominate the visual landscape, and no visually significant natural or topographical features. As such, the affected lands are generally considered to have a low visual quality and are not considered to be subregionally important or possessing a high scenic value.

In addition, the proposed southern transmission route along Palm Canyon Drive/Borrego Valley Road presently supports utility poles similar to that which would be installed with the Project. The proposed northern transmission route along the existing SDG&E easement does not presently support utility poles, but by nature of its function, is generally void of any significant vegetation or other landscape components of visual significance. Neither of these routes is considered to possess landscape components that create distinctive visual patterns or possess high visual quality. As such, the lands potentially affected by the transmission routes are generally considered to have a low visual quality and are not considered to be subregionally important or possessing a high scenic value.

Improvements at Borrego Substation Expansion Area

Improvements at the Borrego Substation and associated transmission facilities would not significantly affect the existing visual quality of the area. Similar facilities are present on the site, and the Project would not introduce new components that would significantly contrast with the existing utility use. Limited grading would be required onsite to provide a level building pad, and therefore, the Project would not create topographical features that would differ from that which presently exists or detract from the character of the surrounding landscape. As the visual quality of the site is presently considered to be low, as the site is utilized for utility purposes and offers no landscape components of visual memorability or distinctive visual patterns, the proposed improvements are not anticipated to significantly change or decrease the visual quality of existing conditions at the Borrego Substation.

As the lands affected by the Project would be graded (minimal) and/or cleared and grubbed, onsite vegetation following Project implementation would be minimal. As no landscape treatments are proposed with the Project, the visual quality of the site would not be enhanced following completion of the construction phase through the maturing of trees, plants, or other decorative landscaping features; however, as the existing visual quality of the affected parcels is not considered to be high, combined with the condition that surrounding lands support similar natural vegetation that would partially reduce views to the site, installation of the PV solar panels would not significantly reduce overall existing visual quality of the Project site.

It is not anticipated that the Project would significantly affect the existing visual quality of the lands affected by the Project or of surrounding lands. Potential visual impacts affecting view quality would be less than significant, and no mitigation measures are required.

5.4 Assessment of Viewer Response

Viewer response to visual changes on the Project site with development of the PV solar facilities is anticipated to be varied, dependent upon the Project facilities being viewed and the location of the public vantage point. Viewer response during the construction phase may be greater because grading activities, construction equipment, and varying stages of roadway construction and panel installation may be visible from public roads within the Project vicinity. Once construction is completed, no other changes to the visual landscape would occur, as no other development or improvements are proposed, and no landscaping would be installed that would mature over time, thereby potentially altering views to the Project.

288-Acre Parcel / 53-Acre Lease Parcel / Gen-Tie Routes

The main PV solar field would be located approximately 1,200 feet north of Palm Canyon Drive. As a result, views to this portion of the site would be greatly reduced and intermittent. Viewer response to views of this area of the Project would be low, due to distance and intervening vegetation.

Viewer response to Project-related utility poles along Palm Canyon Drive and Borrego Valley Road would also be low. Utility poles are present along both of these roadways, and the extension of the poles as proposed with the Project would be minimal. Viewer reaction to this change in conditions is not anticipated to be of significance.

Viewer response from other public vantage points within the valley or from public roadways located at a distance (i.e. Highway 78 or S~~R~~22) is anticipated to be low. Views to the Project site from locations within the community would generally be reduced or blocked due to intervening development and minimal differences in elevation (generally flat viewing plane). Viewer response from more distant locations would be low, as the Project would not represent a significant visual feature within the landscape due to distance and existing vegetation and development along the valley floor.

Improvements at Borrego Substation Expansion Area

Improvements at the Borrego Substation Expansion Area would be visible mainly from Borrego Valley Road, with limited views occurring from public vantage points within the surrounding valley. As such, viewer exposure would be somewhat limited. Viewer sensitivity to the change in the visual setting would likely be low as the Project would install transmission components similar to those which presently exist on the Borrego Substation site. As such, viewer response to the proposed facilities would be lessened, as a substantial change in the existing visual landscape would not occur.

5.5 Determination of Significance

1) Introduction of features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color,

architecture, building materials, etc.) or by being inconsistent with applicable design guidelines.

Location / Lot Size

The Project area is located in the Borrego Valley, which is in the desert region of northeastern San Diego County. In the Project vicinity, parcels are generally large-acre parcels with low-density uses. The majority of surrounding parcels are designated as Estate – Single Family, which allows low density development (0.1 to 0.4 dwelling units per acre). A number of smaller parcels are located to the south of the Project site, across Palm Canyon Drive, and are generally designated as Office – Low Intensity or Neighborhood/Low Intensity Commercial. Smaller lot sizes are evident within the more developed areas of Borrego Springs. The Project does not propose to subdivide or change the existing size of any of the parcels affected by the proposed improvements, and therefore, would not create lot sizes that were inconsistent with the existing visual character of lands in the surrounding area.

Commercial uses and industrial uses (County General Plan Land Use designations of General Impact Industrial and Limited Impact Industrial) with characteristics similar to that proposed with the Project occur in the surrounding area. The 53-acre-lease parcel is bordered on the north by the 288-acre parcel. To the north and east of these parcels is undeveloped land; to the south is the Borrego Valley Airport; to the west are a commercial palm nursery, and a sand and gravel plant. A microwave tower is also adjacent to the southwest corner of the 288-acre parcel; refer to Figure 2, Aerial Photograph. A commercial sand and gravel yard is located to the north. Palm Canyon Drive borders the parcel to the south; refer to Figure 6, Surrounding Land Uses. Land uses to the south across Palm Canyon Drive generally include undeveloped lands interspersed with industrial type (Limited Impact Industrial) and residential uses. Project improvements at the Borrego Substation expansion area would represent a use consistent with the existing transmission facilities associated with the Substation. As such, industrial and commercial uses with characteristics similar to that proposed with the Project occur in the surrounding area.

Architectural Design

Architectural design of structures within the land areas surrounding the Project is varied, due to a mixture of use types. Residential uses in the area typically exhibit ranch-style features with wooden exteriors and roofing, and generally non-decorative elements. Several visible residential

uses are constructed in the Spanish style, with stucco exteriors, tile roofing, and arched features. Surrounding commercial and industrial uses generally exhibit more utilitarian features with minimal architectural design (i.e., concrete and gravel plant, sand and gravel yard, Borrego Substation, Borrego Valley Airport, self-storage facility).

The Project would involve installation of the PV solar panels on the 288-acre and 53-acre lease parcels, with supporting infrastructure that includes a substation, small-scale structures to house the inverter/distributor transformers and switching gear, and associated transmission equipment (i.e., utility poles and transmission lines). As the Project represents a utility use, Project components would be utilitarian in nature and would not represent structural features such as residential or commercial buildings that would require detailed architectural design or design features intended for visual enhancement. Architectural design of the proposed facilities is not anticipated to significantly contrast with the visual character of other uses found in the surrounding area. The bulk and mass of the proposed structural elements would reflect similar existing components within the visual landscape. The architectural design of Project elements would not result in features that are visually dominant within the visual landscape, or that represent a scale that would significantly contrast with the existing visual character.

Similarly, the transmission facilities proposed at the Borrego Substation expansion area would be similar in character to the existing onsite SDG&E facilities. As such, the installation of the proposed transmission components would not introduce physical elements within the visual landscape that would significantly differ in bulk, mass, or scale, or create a dominant new feature within the existing landscape that would adversely affect the visual character of the area. The design of the proposed transmission facilities would also not further detract from the existing visual quality of the Substation site or surrounding area, as Project improvements would not disrupt the existing visual intactness or unity of the landscape.

Materials and Colors

Surrounding land uses exhibit a variety of materials and colors, depending on the land use considered. Materials generally range from wood, stucco, and concrete block for residential and commercial uses. Metal and/or stucco structures are typical of surrounding industrial and agricultural uses and the Borrego Valley Airport. Exterior colors of surrounding structures are typically earthtoned in nature.

Solar Panels

The PV solar panels would be manufactured at an offsite location and transported to the Project site. The panels would be made of a thin-film amorphous silicon material covering a glass pane and would be black in color and highly absorptive. The materials used to construct the panels are designed to minimize the potential for reflection and retain as much of the solar spectrum as possible, thereby reducing glare. In addition, EE Borrego Land, LLC, has received a letter from the County of San Diego Department of Public Works, Division of Airports, indicating that the solar PV farm would be considered to be a use compatible with aviation activities conducted at the Airport.

Substations

The onsite substations would include transformers, breakers, switches, meters, and related equipment. Such elements would by nature be constructed of various metals with non-reflective surfaces, similar to those found at the existing Borrego Substation. The substations would also support a control room that would be enclosed in a metal structure. The structures would be painted in earthtones (i.e., light brown or green) to visually blend the buildings into the surrounding landscape and not contrast with the surrounding rural environment.

Inverter Enclosures

Approximately 38 small-scale, aboveground structures would be constructed within the solar panel fields to weatherize inverter/distributer transformers and switching gear. The structures would be constructed of non-flammable materials (i.e., steel) with an earthtone finish. Roofing for these structures would also be metal and of an earthtone finish to reflect the visual character of the surrounding natural environment.

Storage Shed

One storage shed would be constructed on the 288-acre parcel to support maintenance activities. The storage shed would be constructed of either concrete block or metal with an earthtone exterior, similar to the exterior of the inverter enclosures.

Borrego Substation Expansion Area

The proposed transmission improvements at the Borrego Substation would be reflective of the existing utility facilities found onsite. Structural elements would be generally constructed of

metal and concrete. The proposed building pad would be surfaced with gravel, similar to the existing access drive that circles the SDG&E facilities. All exterior finishes would be metallic or earthtoned in nature.

Overall, the Project would result in the construction of elements within the landscape that would be respective of the existing visual character and visual quality with regard to materials and color. No features are proposed that would sharply visually contrast with surrounding elements, or that would create a visually dominant feature.

Height / Square Footage

Surrounding residential and commercial uses typically range between one to two stories in height. Industrial-type and/or agricultural uses on surrounding lands support structural elements that generally range from 10 to 30 feet in height, with various elements of greater height, depending on their function. In addition, the communications tower located to the west of the Project site is greater than 100 feet in height. It should also be noted that the Borrego Valley Airport supports several hangars for the storage and protection of airplanes. It is estimated that these facilities range between approximately 100 feet by 350 feet to 550 feet (35,000 s.f. to 55,000 s.f.) in size, with an approximate height of 30 feet. These hangars are located in the western portion of the Airport property and are visible from Palm Canyon Drive.

Square footage of buildings in the area varies, due to the type of use, with residential uses generally of smaller scale (generally one-story) and commercial and industrial uses supporting structures of greater square footage.

Solar Panels

The PV solar panels would be racks mounted in a two-panel system (one panel mounted above a second panel), measuring approximately 10 to 14 feet in total combined width; refer to Figure 3C, Major Use Permit Plot Plan – Elevations/Details. As such, the total height of the two-panel system measured from ground surface would be approximately ~~8~~ eight to ten feet.~~-~~.

The length of each row of panels would be approximately 150 feet along the east/west axis. Spacing between each row along the vertical axis would be approximately 10.5 feet.

Due to the limited height of the solar panels and the topography of the two main parcels (minimal Project grading required), visibility of the panels within the landscape would be

reduced. As sensitive land uses (i.e., residential uses) are not located in the immediate area surrounding the affected parcels, and views to the site would instead generally occur at a distance from developed properties and/or roadways, views of the panels would be limited.

Project Substations

The overall footprint of each of the Project substations would be approximately 150 feet by 90 feet (13,500 square feet or s.f.), with various supporting equipment installed within this footprint. Overall height of the substations would be approximately 35 feet at the apex. The height of the substations, which would be the largest structures built as part of the Project, would generally be consistent with the height of a two-story single-family residential home. Although the footprint of the substations would be approximately 13,500 s.f., due to the nature of the substation facilities, varied heights, and spacing, the equipment would not represent a solid wall or façade, but instead would allow for views through the equipment, thereby reducing the visual appearance. In addition, similar larger-scale elements or structures are associated with existing industrial and commercial uses within the surrounding area, including the sand and gravel operation, microwave tower, Borrego Substation, and the Borrego Valley Airport.

The control room located at the substations would be approximately 12 by 20 feet (240 s.f.) with an overall height of less than 15 feet. As such, these structures would be small-scale in nature, consistent with land uses generally found in the surrounding area.

Inverter Enclosures

The 38 aboveground structures to house the inverter/distributer transformers and switching gear would be approximately 12 feet by 26.5 feet in size (318 s.f.), and 12 feet in height at the apex. As such, these structures would be relatively small in nature, and would not represent a size or height that would significantly contrast to existing land uses in the surrounding area (i.e., residential, industrial, small-scale commercial uses, etc.).

Storage Shed

The onsite storage shed would be approximately 20 by 30 feet in size (600 s.f.). The structure would be approximately 10 feet in height, similar to the inverter enclosures.

Transmission Facilities

Depending on the transmission route selected, the height of the required utility poles would vary. If the northern route is selected, poles installed would be approximately 45 feet in height. Although these poles would be new poles installed within the 20-foot wide SDG&E easement, adjoining lands are generally undeveloped (with exception of the commercial nursery adjacent to the west of the 288-acre parcel), and views of the poles would occur from distant properties, thereby minimizing their appearance within the existing landscape. If the southern route is selected, the height of utility poles along Palm Canyon Drive would be increased from approximately 25 feet (existing) to 40 feet (proposed). Poles along Borrego Valley Road would be extended from approximately 36-37 feet (existing) to approximately 42 feet (proposed). The visual increase in height is anticipated to be minimal and, as similar poles presently exist along both roadways, improvements made with the Project would not cause a substantial change in the existing visual landscape or conflict with the character of surrounding land uses.

Borrego Substation Expansion Area

Proposed transmission facilities at the Borrego Substation expansion area would be similar in height with the existing SDG&E facilities. The majority of Project components at the site would be 24 feet or less in height. One 69kV busbar would be installed, approximately 40 feet in height. Existing structural elements onsite associated with the Substation reach a height of 35 feet, and therefore, the proposed Project would not introduce an element that visually conflicts with the scale of the existing facilities, thereby contrasting with the existing visual character of the area.

As such, the Project would not result in the introduction of features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area, or by being inconsistent with applicable design guidelines. Impacts would be less than significant, and no mitigation is required.

Bulk and Scale

An evaluation of bulk and scale includes an analysis of the visual appearance of structures, relative to other existing development in the surrounding area. Visual bulk and scale of surrounding structures varies depending on the type of use. Residential and commercial uses tend to be of smaller scale (generally one to two stories in height) and visually horizontal in

nature, while agricultural and industrial-type uses generally support structural elements of greater bulk and scale within the visual landscape. The Airport property supports a number of large-scale airplane hangars, with associated maintenance facilities, and an administrative building with offices and a restaurant. These structural features have visible bulk and scale within the landscape, particularly as adjoining lands are undeveloped.

It is anticipated that the apparent visual bulk and scale of the proposed Project facilities would generally be consistent with that of surrounding uses, due to the design requirements of the solar facilities and associated infrastructure, structural/equipment heights, and required development regulations of the applicable zones.

The panels would be rack mounted in a two-panel system (one panel mounted above a second panel), measuring approximately 10 to 14 feet in total combined width. ~~The PV solar panels would be rack-mounted in a two-panel configuration, measuring approximately 10 feet in total combined width~~. Total height of the two-panel system measured from ground surface would be approximately ~~8~~ eight to ten feet. During final engineering and design, a two- or three-panel design may be used depending upon the availability of panels within the market. The height of the panels would be determined during final engineering and would also be based upon design requirements of Borrego Valley Flood Management Plan design and construction criteria. The distance from the ground to the top of the panel system would not exceed a maximum height of 10 feet.

As such, the solar panels would be low-lying and would not be of significant scale. The panel configurations are also not of significant bulk, as they are constructed of a thin-film amorphous silicon material covering a glass pane and pole-mounted. Due to the limited height of the solar panels and the topography of the two main parcels, visibility of the panels within the landscape would be further reduced.

In addition, the structural elements (substation, inverter enclosures, storage shed) would be dispersed within the approximate 341-acre area of the 288-acre and the 53-acre lease parcels. The substation would reach an approximate 35 feet in height at its apex, with the other structures ranging between 10-12 feet in height. As these facilities would be relatively low-lying within the landscape and limited in height, they are not considered to be of significant scale that would be inconsistent with surrounding land uses or community character. In addition, these elements would range from approximately 600 s.f. to 13,500 s.f., and would not be of significant visual bulk, due to their function and utilitarian design.

All utility poles installed or retrofitted with the Project would ultimately range between 40 to 45 feet in height and would be of limited diameter. As such, the poles would have a vertical emphasis and would not be considered to exhibit substantial visual bulk. Although the Project would either install new utility poles (northern transmission route) or replace or retrofit existing utility poles (Palm Canyon Drive and Borrego Valley Road), the poles would not be of substantial scale with regard for typical utility poles that presently allow for utility transmission within the Borrego Springs community, as well as structural elements associated with other agricultural uses and equipment and industrial type uses within the surrounding area.

The proposed facilities at the Borrego Substation Expansion Area would reflect the bulk and scale of the existing SDG&E facilities, due to their general nature and function. The proposed components would not represent elements that would detract from the existing visual character or quality of the site or that would significantly dominate or differ in size from existing components within the landscape.

Building Coverage

Building coverage is generally expressed as a percentage and represents the area of land covered by the footprint of a building. Building coverage is calculated as the building area divided by total lot area. The building footprint does not include paved areas, such as driveways or parking areas or walkways around structures, as defined by Section 1110 of the County Zoning Ordinance.

Many undeveloped lands are present in the area surrounding the Project site, and therefore, do not support buildings; refer to Figure 2, Aerial Photograph. The majority of surrounding developed lands are large-acre parcels with structures of varied square footage, depending on the use (i.e., single-family residential versus industrial); refer to Table 3, Development Characteristics of the Project Site and Surrounding Uses. As lot sizes generally decrease south of Palm Canyon Drive and in the more developed areas of Borrego Springs, building coverage increases.

Of particular consideration is the Borrego Valley Airport, as it is immediately adjacent to the 53-acre lease parcel. The property totals approximately 191 acres with existing onsite structures totaling an estimated 151,500 s.f. (includes airplane hangars). As such, building coverage is estimated to be approximately 1.8 percent (151,500 s.f./8,329,100 s.f.).

As stated earlier, two substations and approximately 38 supporting inverter enclosures would be constructed on the 288-acre parcel and the 53-acre lease parcel. Each substation (building footprint) would total approximately 13,500 s.f., or 27,000 s.f. overall. The inverter enclosures would be approximately 318 s.f., or a total of 12,084 s.f. (38 x 318 s.f.). In addition, the storage shed would total approximately 600 s.f. As the total land area affected with these two parcels would be approximately 341 acres, overall building coverage would be an estimated 0.26 percent (39,684 s.f./14,810,400 s.f). As such, Project building coverage would represent only a fractional portion of the affected parcels, consistent with the generally rural character of surrounding lands.

In addition, the Project would involve the installation of PV solar panels on racks, mounted in a two-panel system (one panel mounted above a second panel; however, a three-panel system may ultimately be used, as previously described; refer to Figure 3C, Major Use Permit Plot Plan – Elevations/Details. The panel arrays would be oriented along an east-west axis with the panels facing generally to the south. The length of each row of panels would be approximately 150 feet along the east/west axis. Spacing between each row along the vertical axis would be approximately 10.5 feet. Although from an aerial perspective, the panels would appear to cover a substantial surface land area, the panels would be mounted on poles, thereby minimizing the footprint, or coverage, of each panel rack.

The appearance of the above-described Project elements within the landscape is not anticipated to significantly detract from or contrast with the existing visual character and/or quality of the surrounding neighborhood, community, or localized area. The location, size, design, and operating characteristics of the proposed use would be compatible with adjacent uses, residents, buildings, and structures with consideration given to harmony in scale, bulk, and coverage.

2) Removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings.

None of two main parcels or offsite areas affected by the Project support designated landmarks, historic resources, significant trees, or rock outcroppings. Although the Project would result in the installation of the solar panels and associated facilities within the existing landscape, no significant visual resources would be affected by Project construction.

In addition, utility poles/lines are present along Palm Canyon Drive and Borrego Valley Road and the replacement or retrofitting of such poles on the northern or southern transmission

routes is not anticipated to cause a substantial adverse change in the existing visual character along these roadways.

As such, the Project as proposed would not result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area. Impacts would be less than significant, and no mitigation is required.

3) Substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, a trail within an adopted County or State trail system, a scenic vista or highway, or a recreational area.

The proposed facilities would be constructed on undeveloped lands just north of Palm Canyon Drive. As stated previously, land uses within the surrounding area include industrial and limited commercial-type uses, including the Borrego Valley Airport, a microwave tower, the Borrego Substation, a sand and gravel operation, and a large-scale commercial nursery. In addition, aboveground transmission facilities (poles/lines) cross the visual landscape along Palm Canyon Drive and Borrego Valley Road.

Project construction activities (i.e., construction vehicles, equipment to be installed, etc.) would be temporarily visible on the Project properties themselves and along the proposed transmission alignments; however, the identified sites occur within a rural environment, with limited visual resources. Construction activities may be somewhat visible from area roadways and adjoining properties; however, such effects would be temporary and would cease upon completion of construction.

The following is a discussion of views that would occur from identified vantage points in the surrounding area. Viewpoint locations are identified on Figures 10A and 10B, Key Viewpoint Location Map(s).

Views #1 and #2 – Palm Canyon Drive Looking Northeast and Northwest

Palm Canyon Drive is a two-lane, paved public road, running east-west approximately 1,200 feet to the south of the 53-acre-lease and 288-acre parcels. Views of the solar PV panels on the 53-acre-lease and 288-acre parcels would be limited from this roadway, due to distance from the road, minimal differences in elevation between the road and the Project site (generally flat viewing plane), existing vegetation and intervening land uses (i.e., Borrego Valley Airport);

refer to Figures 11 and 12, which show views to the Project site looking northeast and northwest to the Project from Palm Canyon Drive.

It should be noted that, as discussed above, aboveground transmission lines currently exist along Palm Canyon Drive. Any improvements required to tie the Project into these existing facilities would therefore not introduce a new visual element within the surrounding landscape.

View #3 – Borrego Valley Road / Borrego Substation

Borrego Valley Road is a two-lane, paved public roadway, running north-south, approximately one mile west of the 53-acre-lease and 288-acre parcels; refer to Figure 13. The Borrego Substation is located just east of Borrego Valley Road and just south of the existing 20-foot SDG&E utility easement. Views of the solar panels on the 53-acre-lease and 288-acre parcels from this location would be obscured due to distance from this road, as well as intervening vegetation and topography. Changes to the existing telephone poles and transmission lines along Borrego Valley Road would be minimal and would not introduce a new visual element within the surrounding landscape. Although the poles would be extended approximately five feet, from 36-37 feet to approximately 42 feet, this change is not anticipated to be visually significant to viewers.

In addition, views along the northern transmission route from the roadway and the Substation site would include utility poles installed along the SDG&E utility easement with the Project. Undeveloped, vacant lands generally border this easement (with exception of the agricultural operation (plant nursery), with other undeveloped or low density uses, as well as industrial uses, located further from the easement. As the easement is intended for utility purposes, and lands within close proximity do not generally support sensitive land uses (i.e. residential), the poles would not be considered to cause of significant visual impact or substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road. The transmission facilities installed with the Project would be visually consistent with similar existing facilities (i.e., poles, electrical lines, etc.) that presently enable the transmission of electrical power from the Borrego Substation.

View #4 Borrego Valley Airport

Views of the Project would occur from the Borrego Valley Airport. As demonstrated by Figure 14, views would generally be limited and would not be significantly changed from that which

presently exists due to minimal differences in elevation (flat viewing plane), distance to the PV solar panels, and viewshed through the Borrego Valley Airport facility. In addition, the panels and other onsite structures would be low-lying within the landscape due to height. Other onsite structures (i.e. substations, inverter enclosures) would also not be readily apparent from this viewing location, due to height and distance from the Airport.

View # 5 - Montezuma Valley Road / S-22

Views of the Project would occur from the S-22/Montezuma Valley Road, which begins at the west end of Palm Canyon Drive, approximately four miles to the west of the Project site; refer to Figure 15. The road extends generally to the south/southwest of Borrego Springs. Views of the Project would vary along the winding roadway, but would be short in duration by viewers stopping along the road, or intermittently while traveling. Although the solar panels would be visible within the landscape from this roadway, such views would be intermittent and limited, due to the angle of view and far viewing distance to the Project. The Project would not create development that would obstruct or interrupt views from a public road or scenic highway.

View #6 – Anza Borrego Desert State Park / Font's Point

Font's Point is located within the Anza Borrego Desert State Park, approximately five miles to the east of the Project. Font's Point is a rock formation, rising approximately 1,220 feet amsl at the highest point of the plateau. The Point is accessed by an unpaved roadway extending from the Valley floor.

The Project as well as other existing large-scale built elements within the landscape (i.e., the Borrego Community, the Borrego Valley Airport, agricultural and various country clubs and golf courses) would be visible from this vantage point; refer to Figure 16. Views to the Project site would be intermittent from vehicles or hikers traveling up or down the formation. With consideration for distance to the Project site and elevation above the valley floor, as well as the limited size (height) of the panels, and the presence of other built elements within the landscape, the visual effect would be minimal and views from Font's Point would not be significantly changed with Project implementation.

Other Views

State Route 78 from the western to the eastern boundary of the Anza-Borrego Desert State Park is an existing official Scenic Highway, as identified in the Scenic Highway Element of the General Plan. Due to the distance of this vantage point from the Project site and intervening topography, views to the site are not anticipated; refer also to Figure 17 (Views 7 and 8). Similarly, views from Henderson Canyon Road to the north are not anticipated to be significantly impacted with installation of the solar facilities on the 288-acre parcel or the 53-acre lease parcel, due to distance from the site, variations in topography, and intervening vegetation; refer also to Figure 17 (View 9). As the Project would not significantly impact existing views from these locations, an in-depth analysis of the potential visual effects of the Project on these view locations was not performed herein.

A number of public trails exist on surrounding lands within the Borrego Springs area. Such trails may occur within the State Park or along the various mountain ranges that rise from the valley floor. Any potential views of the Project site from such trails would occur at a distance, thereby reducing the visibility of the proposed facilities. In addition, views to the site from such trails would likely be intermittent due to topography as well as intervening vegetation along the trail. With consideration for distance to the Project site and the limited size (height) of the panels, along with other built elements visible within the landscape, the visual effect of the Project would be minimal and views would not be significantly changed with Project implementation.

In addition, the Project proposes dedication of a 15-foot trail easement along the northern and western boundary of the 288-acre parcel to allow for future construction of a trail. The Project does not propose to construct the trail at either of these locations at this time. Future views to the Project site would occur from the trail once constructed and, due to its close proximity to the PV solar panels, the panels would be visible; however, as the viewer would generally be at eye-level with the panels and views would occur through the chain-link perimeter fence, views would be varied with regard to the range of view and length experienced. Views to the Project site would be limited to that when the viewer is facing or adjacent to the site; once past the site, the Project would no longer be visible without turning one's back. It should also be noted that without the Project, the easement for the trail would not exist, and no such views from the trail would occur. Although future views of the Project from the trail segment proposed with the Project would occur, such views are considered to be brief and restricted by topography and elevational similarities. With consideration for the limited size (height) of the panels, along with other built elements visible within the landscape of the valley floor, the visual effect of the

Project would be minimal and views would not be significantly changed with Project implementation.

As such, it is not anticipated that the Project will substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road or a scenic vista or highway. In addition, views from established recreational areas will not be obstructed or interrupted with development of the site as proposed. Therefore, impacts would be less than significant, and no mitigation is required.

4) The project would not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's zoning.

The Project as proposed has been designed to be consistent with all applicable goals, policies and requirements of the County General Plan, Desert Subregional Plan, and the County Zoning Ordinance. The Project is not within a Historic District, and is therefore, not affected by such a plan. Refer also to the Land Use Compatibility Analysis (prepared April 2010; revised September 2010) prepared for the Project (under separate cover). As such, Project impacts with regard to this would be less than significant, and no mitigation is required.

5.6 Cumulative Impact Analysis

Figure 18, Cumulative Projects, identifies the projects considered for the cumulative analysis. The study area selected for the Project generally includes those lands within proximity to properties affected by the Project, including lands adjacent to proposed transmission routes and the Borrego Substation. A list of projects considered for the cumulative analysis is included in Table 6, Cumulative Projects, below. The location of these projects is shown in Figure 18, Cumulative Projects Map.

TABLE 6
CUMULATIVE PROJECTS

Number*	Project Name
1	Borrego Springs Country Club TM
2	Borrego Country Club TM
3	Borrego Country Club Estates TM
4	Borrego Springs Senior Condominiums TM
5	Desert Diamond TPM
6	Bowen Jonas TPM
7	Borrego Sand and Rock Borrow Pit MUP, RECL PLAN
8	Borrego 50 Site Plan TM
9	Rams Hill MUP Min Dev 79-130-05 MOD/Deviation Montesoro Development Lot 1, 40-Lot Subdivision TM, MUP
10	Yaqui Pass GPA, SP, TM, REZ
11	Yaqui Pass TM
12	Miller TPM 4-Lot
13	Road Runner Club Pre-App TM MUP P99 MOD/Deviation
14	Rainshadow TPM
15	Borrego 138 TM, MUP
16	Bole TPM
17	Friestedt TM
18	Henderson Canyon TPM
19	U.S. Solar (NRG Borrego Solar One), MUP
20	Avalon Borrego Solar, MPA

* Project number refers to location as shown on Figure 18, Cumulative Projects Map.

Construction of currently approved and pending projects in the Project vicinity would permanently alter the nature and appearance of the area as future development occurs over upcoming years. ~~The gradual visual effects of the change in land use from undeveloped to developed land with the Project and elsewhere within the cumulative study area would be evident as development within the Borrego Springs community continues~~ Gradual buildout of the projects considered in the cumulative analysis would result in a change in the existing conditions over time; however, the change would not result in a significant impact as it would not substantially alter the overall visual landscape of the desert.

It is anticipated that future construction activities within the cumulative study area would occur on various sites and at varied times, when an application for development is made. Such construction-related impacts would be short-term and would cease upon completion. In addition, all new development projects within the cumulative study area would be subject to additional environmental and design review on a site-specific, project-by-project basis to ensure visual aesthetic impacts are limited to the extent possible during the construction process. All future construction activities would be required to be consistent with the County's regulatory requirements and applicable conditions of approval to reduce potential cumulative effects of construction to less than significant.

In addition, future development of the cumulative projects in the Project vicinity could permanently convert existing offsite open space or undeveloped lands to developed lands, potentially resulting in the incremental loss of visible open space within the Borrego Springs community. Such future development could also contribute to the alteration of views to designated visual resources. All future development within the Borrego Springs community would be subject to an evaluation of the significance of potential cumulative visual and aesthetic changes on a site-specific, project-by-project basis, with consideration for its scope and contribution to a change in the overall visual pattern or character within the community.

The cumulative projects considered for the Visual Analysis are located throughout the Borrego Valley area; refer to Figure 18, Cumulative Projects Map. All but two of the projects are residential subdivisions. These additional planned residential uses represent a continuation of the existing development pattern in Borrego Valley. The two non-residential projects include a proposed sand and mining operation (located to the north of the Project site and not visible from the valley floor) and a permit modification to an existing resort development. ~~; however, the significance and extent of the resulting visual and/or aesthetic changes is difficult to effectively evaluate, as aesthetic value is subjectively determined and future potential impacts would be site-specific.~~

~~It is anticipated that future construction activities within the cumulative study area would occur at various sites and at varied times, when an application for development is made. Such construction-related impacts would be short-term and would cease upon completion. In addition, all new development projects within the cumulative study area would be subject to additional environmental and design review on a site-specific, project-by-project basis to ensure visual aesthetic impacts are limited to the extent possible during the construction process. All future construction activities would be required to be consistent with the County's regulatory~~

~~requirements and applicable conditions of approval to reduce potential cumulative effects of construction to less than significant.~~

~~In addition, cumulative projects in the Project vicinity could potentially convert existing offsite open space or undeveloped lands to developed lands, potentially resulting in the incremental loss of visible open space within the Borrego Springs community. Such future development could also contribute to the alteration of views to designated visual resources.~~

To date, two formal applications have been made to the County for solar energy projects within the Borrego Springs area, similar to that of the proposed Project. These include the U.S. Solar project (NRG Borrego Solar One project: P3300-10-026), located approximately 7,000 feet to the northwest of the proposed Project site at the southwest corner of Borrego Valley Road and Henderson Canyon Road, and the Avalon Borrego Solar project (MPA 10-015), located approximately 3.8 miles to the northwest of the Project site along Di Giorgio Road. The projects are proposing a 300-acre, 46 MW solar farm and a 19-acre, 1.5 MW solar farm, respectively. These projects are currently being processed through the County.

As the Borrego Springs area offers a desert environment with abundant sunshine, combined with available undeveloped lands that are generally flat, the area represents optimal conditions for the sighting of solar energy facilities in the future. If proposed, it is anticipated that any future installation of solar panels along the valley floor would occur sporadically on available parcels as independent development applications, rather than concentrated in one large area of the valley. Thus, the cumulative visual effects of such installations would be reduced, as a range of small-scale to larger-scale projects would likely be proposed, depending on available land, proper zoning, and the nature of the applicant.

In addition, as evaluated for the proposed Project, potential glare impacts on a cumulative level as the result of additional solar energy facilities locating within the Borrego Valley would be less than significant. As all solar panels are designed to absorb sunlight, potential glare effects from future additional solar installations would not create significant glare or reflective surfaces that would create adverse effects on surrounding land uses or on views from surrounding vantage points.

Future solar installations along the valley floor would have a similar visual effect as other types of development would have in that they would generally change undeveloped land to developed land. Over time, it is anticipated that development within the Borrego Valley will continue to occur. As the valley floor is extensive, and the proposed Project site represents a minimal

overall percentage of such lands, the proposed development is not expected to result in a significant visual change in the appearance of the valley floor when viewed from higher elevations. In addition, due to the limited height and scale of the proposed Project elements, the Project is not anticipated to contribute to a significant cumulative impact on existing views from locations within the valley, as such views would be restricted by relatively flat topography, and intervening development and vegetation.

Assuming a complete buildout of all the projects considered for the cumulative analysis, potential aesthetic cumulative impacts are considered to be less than significant for the following reasons:

The projects would not result in the introduction of feature that would detract or contrast with the existing visual features of the surrounding area. The existing development in the Borrego Valley consists of a range of uses that include high-end desert resorts, mobile home parks, agricultural uses, commercial uses, and single family residential uses. The inclusion of the three solar projects (including the proposed Project) in the land use mix would not conflict with the visual quality of the area because the solar projects are spread out and not concentrated in one area. These projects would not disrupt the pattern of development adjacent to existing homes or businesses, and would not conflict with specific design guidelines or specific thematic development requirements in the area.

The addition of the cumulative projects would not remove or create a substantial adverse change to the features that represent a valued visual resource in the area. The valley floor would still be visible from higher elevations and would still appear to have a scattered development pattern once the cumulative projects are constructed. None of the projects would alter the mountain views from the valley floor from places where they are currently observed. The cumulative projects would not remove or replace any local or State designated landmarks.

The proposed Project would not substantially obstruct or detract from valued lookouts or panoramic views from public roads, scenic highways, or recreational areas. Buildout of the cumulative projects would not have an adverse effect on these public viewsheds because the projects would match the existing development pattern in the Borrego Valley. As noted previously, most of the cumulative projects are residential projects or modifications to existing developments. From a vantage point where all of the developments would be visible, it would appear as the continuation of the existing development pattern in the area. In order to see all three proposed solar projects, the viewpoint would have to be located at a higher elevation than the valley floor and would be several miles away from any one of the proposed solar projects.

Because of the distance between the solar projects and the distance from the public viewpoints, the cumulative visual effect of the solar projects would not substantially obstruct views from scenic vistas or public roads.

Moreover, the cumulative projects would be required to comply with applicable goals and policies of the County General Plan, Desert Subregional Plan, and County Zoning Ordinance. Only one project, the Yaqui Pass project (GPA, Specific Plan, Tentative Map, and Rezone) proposes to change the existing County General Plan and Zoning Ordinance. Specific analysis to show compatibility of the Yaqui Pass project would be required prior to approval of the project.

In addition, all~~All~~ lighting proposed with future development within the cumulative study area, such as street lighting, security lighting, or exterior illumination, would potentially result in increased light and glare impacts within the Borrego Springs community. Projects within the cumulative study area would be evaluated by the County and the Borrego Springs Community Sponsor Group on a project-by-project basis to determine the extent of such lighting necessary and any appropriate site-specific measures to reduce potential impacts on surrounding areas (i.e., shielding, use of low-level lighting, directing lighting away from adjacent properties and open space areas). As such, it is anticipated that the cumulative effects of increased lighting and/or glare associated with future development in the cumulative study area would be reduced to less than significant levels. As the Project would require minimal lighting for the purposes of security and maintenance, the Project would not contribute to significant cumulative impacts relative to light and/or glare. Impacts in this regard would be less than significant.

All future development within the Borrego Springs community would be subject to an evaluation of the significance of potential cumulative visual and aesthetic changes on a site-specific, project-by-project basis, with consideration for its scope and contribution to a change in the overall visual pattern or character within the community. Adherence to applicable General Plan policies and goals and applicable County Design Standards would further reduce potential cumulative impacts relative to the long-term alteration of views to designated scenic resources. Although the Project would result in a permanent visual change in the existing landscape with development of the proposed PV solar farm, as demonstrated by evaluation of the visual simulations prepared, the Project is not considered to contribute to a significant cumulative effect with regard to the loss of views to scenic resources.

5.7 Summary of Project Impacts and Significance and Conclusions

The Visual Analysis was prepared to provide an evaluation of potential Project impacts on existing visual resources and character of the surrounding community of Borrego Springs, California. With regard to visual resources, the Project would not result in the introduction of features that would significantly detract from or contrast with the visual character of the surrounding community by conflicting with visual elements or quality of an existing area (i.e., through conflicting style, size, coverage, scale, building materials, etc.). The Project would not result in the removal of or substantial adverse change to one or more features that contribute to the valued visual character or image of the Project area, including but not limited to designated landmarks, historic resources, trees, or rock outcroppings. Furthermore, the Project would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, trails within an adopted County or State trail system, scenic vista or highway, or recreational area. The Project as designed would also not result in an inconsistency with any goals, standards, or policies related to visual resources as given in the County General Plan, Desert Subregional Plan, or County Zoning Ordinance.

For the above reasons, it was determined that the Project would not result in potentially significant impacts on visual resources in the Borrego Springs community. As such, no mitigation measures are required or proposed.

6.0 Visual Mitigation Measures / Design Considerations

6.1 Visual Impact Analysis

The Project would not result in the introduction of features that would significantly detract from or contrast with the visual character of the Borrego Springs community by conflicting with visual elements or quality of an existing area. In addition, the Project would not result in the removal of or substantial adverse change of one or more features that contribute to the valued visual character or image of the Project area, including but not limited to designated landmarks, historic resources, trees, or rock outcroppings. Furthermore, the Project would not substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, trails within an adopted County or State trail system, scenic vista or highway, or recreational area. The Project as designed would also not result in an inconsistency with any goals, standards, or policies related to visual resources as given in the County General Plan, Desert Subregional Plan, Borrego Valley Airport Land Use Consistency Plan, or other applicable regulations and ordinances. In addition, on November 30, 2009, the Project Proponent received a determination of "No Hazard to Air Navigation" from the FAA, thereby indicating that the Project would not interfere with operations at the Borrego Valley Airport. The San Diego County Regional Airport Authority also issued a consistency determination on March 2, 2010, indicating that the proposed use is conditionally consistent with the Borrego Valley Airport Land Use Compatibility Plan (BVALUCP). An amendment of the application has been submitted to include the transmission lines and substation modifications. Given their relative distance from the airport, no issues are expected. On February 4, 2010, the San Diego County Regional Airport Authority, Airport Land Use Commission voted unanimously that the Project would be consistent with the Borrego Valley Airport Land Use Compatibility Plan.

Design measures contributing to reduced visibility of the Project facilities within the landscape include the 30-foot setback from the Project perimeter for emergency access and reduction of the potential for wildfire to occur. In addition, the Project has been designed to place the majority of buildings on the 288-acre parcel and the 53-acre lease parcel within the interior of the property to reduce visibility, and structures would include an exterior surface that is earthtoned. Access to these parcels would be provided through a secured gate and identified by

minimal signage, rather than decorative or otherwise highly visible design features. Although the Project would change the visual character of the affected parcels, the proposed facilities would be consistent with development intended for the properties as indicated by the existing General Plan land use and zoning designations, and would be visually compatible with other existing uses in the surrounding area (i.e. Borrego Valley Airport, sand and gravel operation, communications tower, Borrego Substation) which support structural elements or design characteristics (i.e. materials, colors, etc.) similar to that associated with the Project.

For the above reasons, no significant impacts on visual resources/aesthetics are anticipated to occur with Project implementation. Therefore, no mitigation measures are required or proposed.

Through this Visual Resources/Aesthetics Analysis, potential effects of the PV Solar Farm Project were evaluated against the thresholds of significance developed by the County of San Diego. The Project is considered to be compatible with the existing character of the surrounding Borrego Springs community, and would be consistent with applicable County and community land use regulations with regard to visual and aesthetic resources. No significant impacts were identified with regard to visual/aesthetic resources. As such, Project impacts would be less than significant, and no mitigation measures are required or proposed.

7.0 References

Borrego Springs Community Plan (Draft - 2009).

Borrego Valley Airport Land Use Compatibility Plan (December 2006).

County of San Diego General Plan.

County of San Diego General Plan Update.

County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements – Visual Resources. July 30, 2007.

County of San Diego Zoning Ordinance. Updated with Ordinance Update No. 80, October 2009.

County of San Diego Wildland Urban Interface Ordinance. Ordinance No. 9670.

Desert Subregional Plan (Part XXI). Amended January 11, 1995.

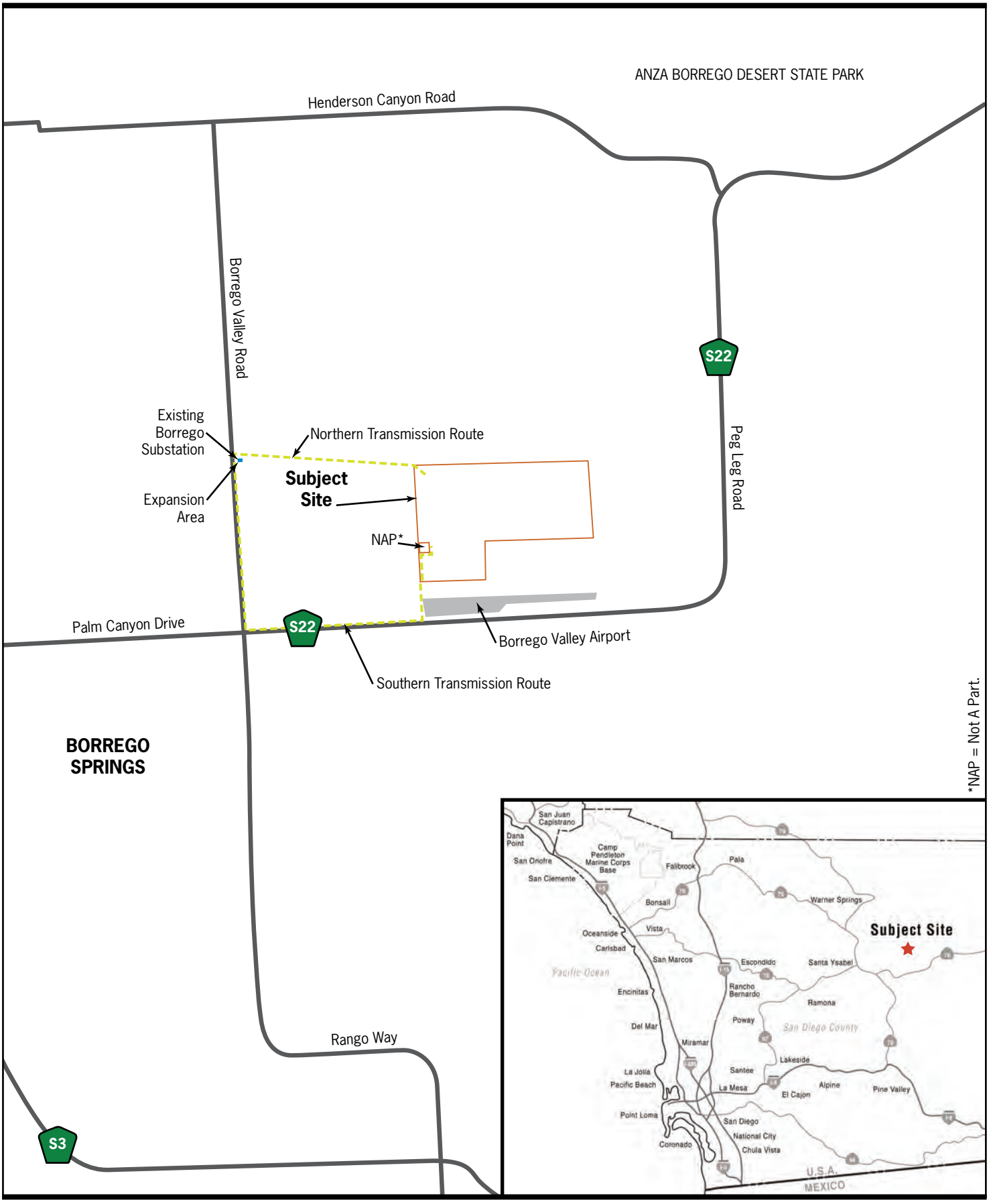
8.0 Report Preparers

RBF Consulting

Alex H. Jewell, AICP, LEED AP
Environmental Project Manager
County-Certified Preparer for Visual Impact Analyses

Nicole Marotz, AICP, LEED AP
Environmental Planner
Primary Author of Visual Impact Analysis

THIS PAGE INTENTIONALLY LEFT BLANK



RBF CONSULTING

SDMac:25103821/3821fig1.ai

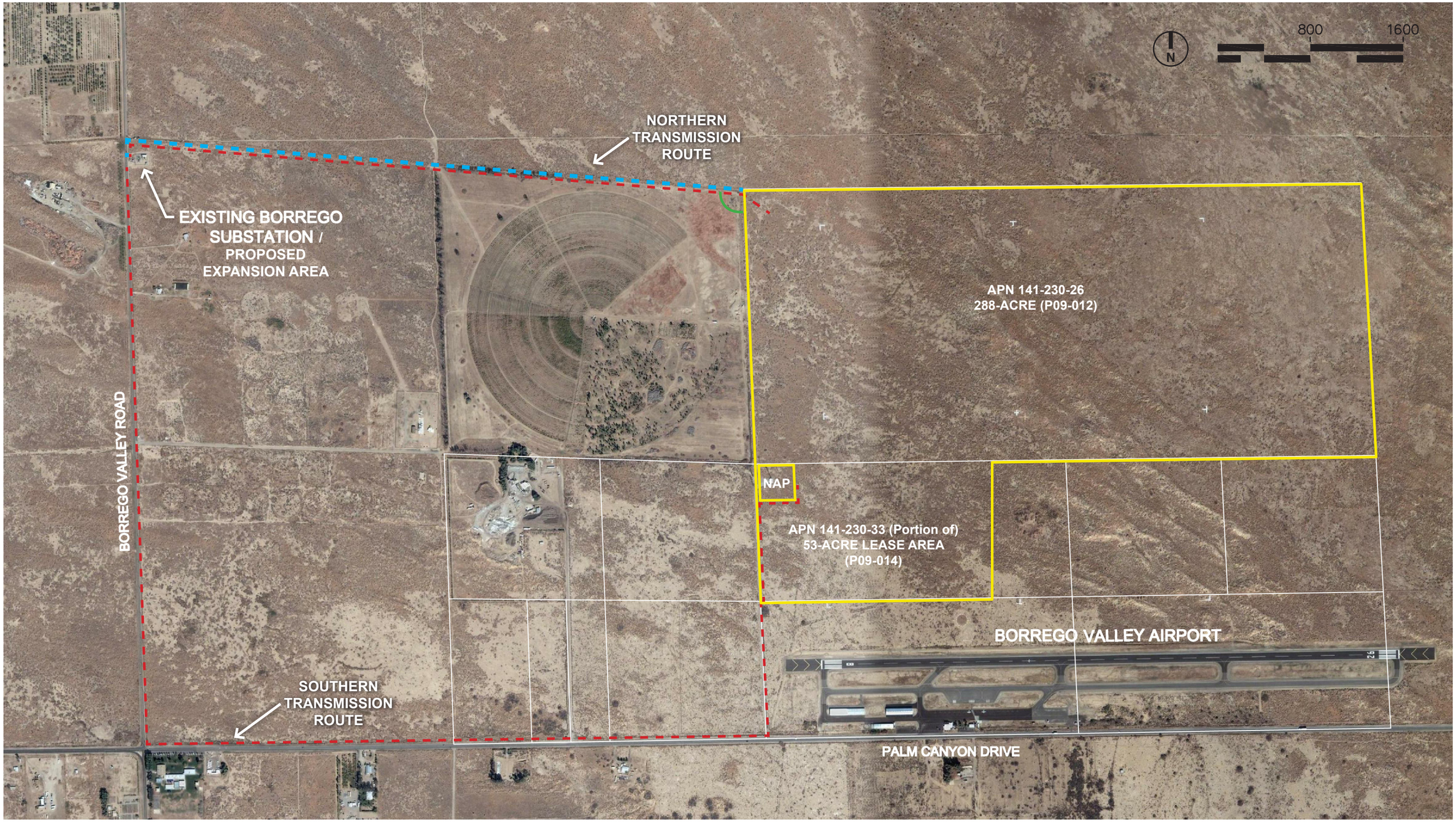
N

Not to Scale

Regional / Local Vicinity Map

Photovoltaic Solar Farm

Figure 1



Source: Eagle Aerial, 2008.

RBF CONSULTING

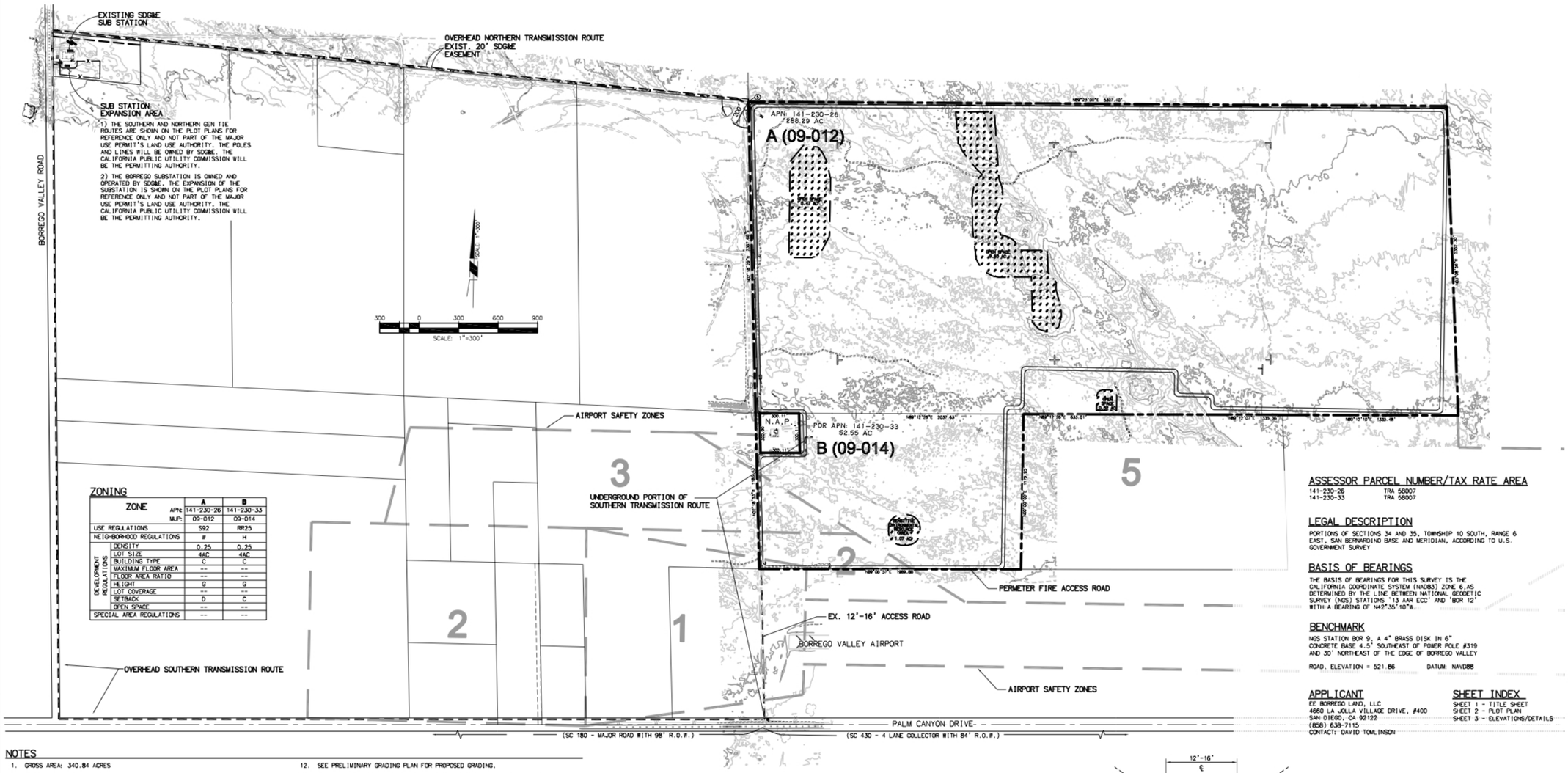
SDMac:25103821/3821_tabloid_landscape.indd

Proposed Transmission Route
Existing 20-foot SDG&E Utility Easement
200' Utility and Access Easement
NAP = Not A Part

Aerial Photograph

Photovoltaic Solar Farm

Figure 2



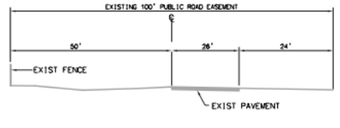
ZONING

ZONE		A	B
	APN:	141-230-26	141-230-33
	MUP:	09-012	09-014
USE REGULATIONS		S92	RR25
NEIGHBORHOOD REGULATIONS		W	H
DEVELOPMENT REGULATIONS	DENSITY	0.25	0.25
	LOT SIZE	4AC	4AC
	BUILDING TYPE	C	C
	MAXIMUM FLOOR AREA	--	--
	FLOOR AREA RATIO	--	--
	HEIGHT	G	G
	LOT COVERAGE	--	--
	SETBACK	D	C
	OPEN SPACE	--	--
SPECIAL AREA REGULATIONS		--	--

NOTES

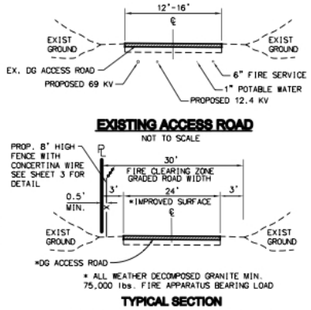
1. GROSS AREA: 340.84 ACRES
2. NET AREA: 338.55 ACRES
3. TOPOGRAPHIC SOURCE: VERTICAL MAPPING, FLOWN 5/8/09
4. ASSOCIATED REQUESTS: NONE
5. THE APPROVAL OF THIS MAJOR USE PERMIT (MUP) AUTHORIZES THE FOLLOWING: CONSTRUCTION, OPERATION, AND MAINTENANCE OF A PHOTOVOLTAIC SOLAR FARM PURSUIT TO SECTION 1350 AND 2185b, 2525a, 2925a, OF THE SAN DIEGO COUNTY ZONING ORDINANCE.
6. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.
7. ALL BUILDINGS TO BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS (CONCRETE, BLOCK, METAL) OR SIMILAR.
8. NO LANDSCAPING PROPOSED.
9. LIGHTING FOR MAINTENANCE AND SECURITY PROPOSES ONLY. SHIELDED LIGHTING LOCATED AT GATES AND SUBSTATION BUILDING AND SHALL CONFORM TO COUNTY OF SAN DIEGO OUTDOOR LIGHTING REQUIREMENTS. SEE DETAIL ON SHEET 3.
10. PHASING - PROJECT WILL BE IMPLEMENTED IN SEVERAL PHASES WITHOUT REGARD TO SEQUENCE.
11. ALL DISTRUBED AREAS WOULD BE COVERED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
12. SEE PRELIMINARY GRADING PLAN FOR PROPOSED GRADING.
13. NO SIGNAGE PROPOSED, EXCEPT FOR DIRECTIONAL AND SAFETY SIGNAGE.
14. NO DEVELOPMENT WILL OCCUR IN THE AREAS IDENTIFIED ON THE PLOT PLAN AS "UNDISTURBED AREA".
15. SEE SHEET 2 FOR LEGEND.
16. THE ENTIRE SITE IS SUBJECT TO INUNDATION BY THE 100-YEAR FLOOD AND IS WITHIN FEMA MAP NO. 06073C0675F THE LIMITS OF THE 100-YEAR FLOOD ALONG THE WATERCOURSE WHICH FLOWS THROUGH THE PROPERTY.
17. ALL SITE ACCESS GATES (2 EXISTING & 1 PROPOSED) TO BE EQUIPPED WITH FIRE DEPARTMENT APPROVED STROBE LIGHT ACTIVATION AND KNOX KEY-OPERATED SWITCH.
18. THE SOLAR RELATED FACILITIES (PANELS, RACKING, ELECTRICAL CONNECTIONS, INVERTER STRUCTURES, STORAGE BUILDING, SUBSTATION, CONTROL ROOMS, FENCING, AND INTERNAL ACCESS, ETC.) SHOWN ON THE PLOT PLAN MAY BE RELOCATED, RECONFIGURED, AND/OR RESIZED WITHIN SOLAR FACILITY DEVELOPMENT AREA (EXCLUSIVE OF THE OPEN SPACE AREAS) WITH THE ADMINISTRATIVE APPROVAL OF THE DIRECTOR OF DPLU WHEN FOUND IN CONFORMANCE WITH THE INTENT AND CONDITIONS OF PERMIT'S APPROVAL .
19. THE ENTIRETY OF THE PARCEL ENCUMBERED BY MUP 09-012 (APN 141-230-26-00) IS SUBJECT TO THE RESTRICTIONS AND TERMS OF A COUNTY AVIGATION EASEMENT.
20. TOTAL SOLAR PANEL HEIGHT WILL NOT EXCEED 10 FEET IN EITHER OF THE 2 OR 3 PANEL SYSTEM.

PROJECT SITE & SURROUNDINGS
SCALE: 1"=300'



TYPICAL SECTION
PALM CANYON DRIVE
NOT TO SCALE

TYPICAL SECTION
PERIMETER FIRE ACCESS ROAD
WITH TRAIL EASEMENT
NOT TO SCALE
*EASEMENT AREA TO BE CLEARED & GRUBBED ONLY FUTURE TRAIL IMPROVEMENTS BY OTHERS



EXISTING ACCESS ROAD
NOT TO SCALE

* ALL WEATHER DECOMPOSED GRANITE MIN. 75,000 lbs. FIRE APPARATUS BEARING LOAD

TYPICAL SECTION
PERIMETER FIRE ACCESS ROAD
NOT TO SCALE
*TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN

ASSESSOR PARCEL NUMBER/TAX RATE AREA

141-230-26	TRA 58007
141-230-33	TRA 58007

LEGAL DESCRIPTION

PORTIONS OF SECTIONS 34 AND 35, TOWNSHIP 10 SOUTH, RANGE 6 EAST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO U.S. GOVERNMENT SURVEY

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM (NAD83) ZONE 6,AS DETERMINED BY THE LINE BETWEEN NATIONAL GEODETIC SURVEY (NGS) STATIONS "13 AAR ECC" AND "BOR 12" WITH A BEARING OF N42°35'10"W.

BENCHMARK

NGS STATION BOR 9, A 4" BRASS DISK IN 6" CONCRETE BASE 4.5' SOUTHEAST OF POWER POLE #319 AND 30' NORTHEAST OF THE EDGE OF BORREGO VALLEY ROAD, ELEVATION = 521.86 DATUM: NAVD88

APPLICANT

EE BORREGO LAND, LLC
4660 LA JOLLA VILLAGE DRIVE, #400
SAN DIEGO, CA 92122
(858) 638-7115
CONTACT: DAVID TOMLINSON

SHEET INDEX

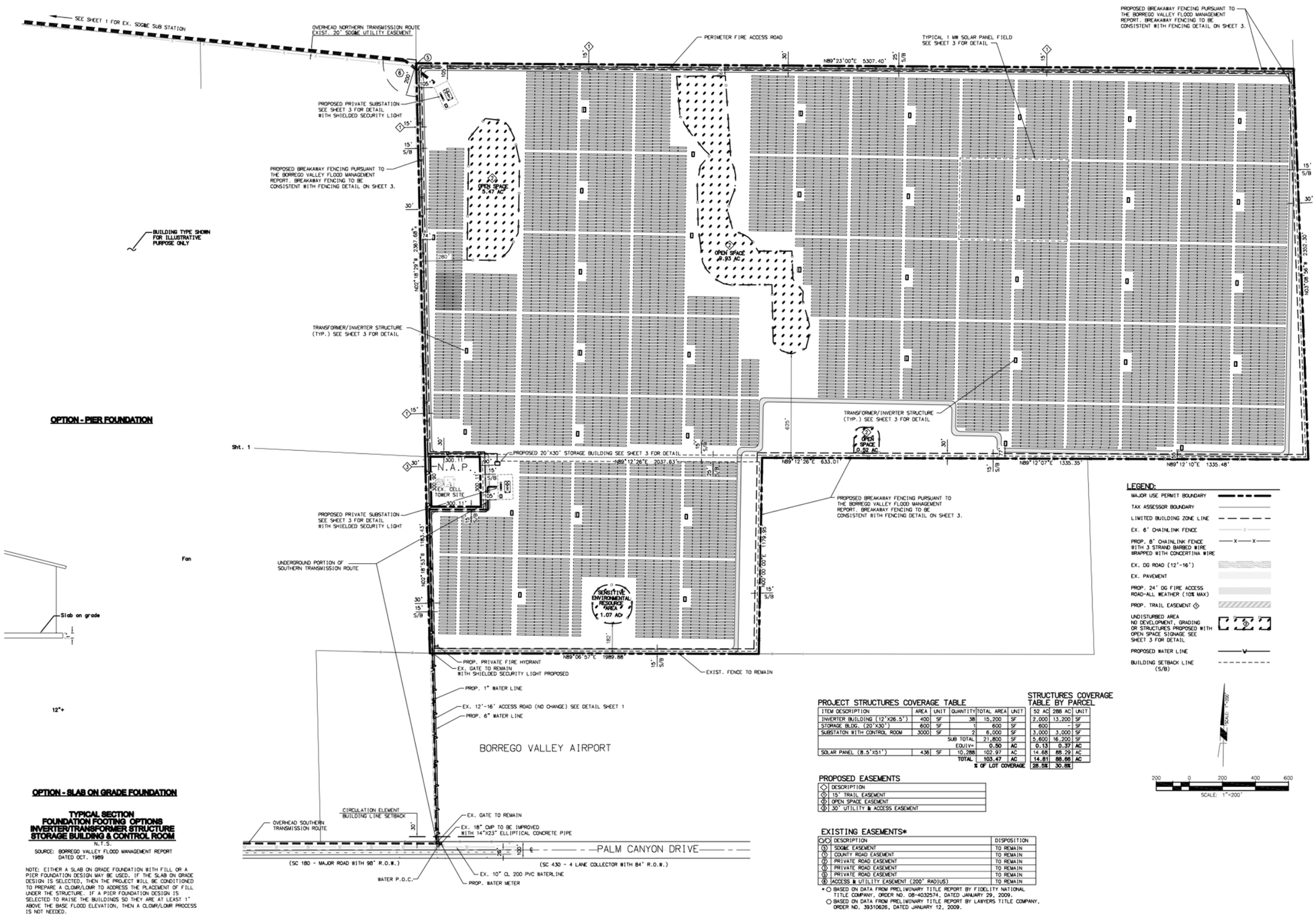
RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Major Use Permit Plot Plan

Photovoltaic Solar Farm

Figure 3A



PROJECT STRUCTURES COVERAGE TABLE

ITEM DESCRIPTION	AREA	UNIT	QUANTITY	TOTAL AREA	UNIT
INVERTER BUILDING (12'X26.5')	400	SF	38	15,200	SF
STORAGE BLDG. (20'X30')	600	SF	1	600	SF
SUBSTATION WITH CONTROL ROOM	3000	SF	2	6,000	SF
			SUB TOTAL	21,800	SF
			EQUIV=	0.50	AC
SOLAR PANEL (8.5'x51')	436	SF	10,288	102.97	AC
			TOTAL	103.47	AC
			% OF LOT COVERAGE		

STRUCTURES COVERAGE TABLE BY PARCEL

52 AC	288 AC	UNIT
2,000	13,200	SF
600	-	SF
3,000	3,000	SF
5,600	16,200	SF
0.13	0.37	AC
14.68	88.29	AC
14.81	88.66	AC
28.5%	30.8%	

PROPOSED EASEMENTS

	DESCRIPTION
1	15' TRAIL EASEMENT
2	OPEN SPACE EASEMENT
3	30' UTILITY & ACCESS EASEMENT

EXISTING EASEMENTS*

	DESCRIPTION	DISPOSITION
1	SDGE EASEMENT	TO REMAIN
2	COUNTY ROAD EASEMENT	TO REMAIN
3	PRIVATE ROAD EASEMENT	TO REMAIN
4	PRIVATE ROAD EASEMENT	TO REMAIN
5	PRIVATE ROAD EASEMENT	TO REMAIN
6	ACCESS & UTILITY EASEMENT (200' RADIUS)	TO REMAIN

* ○ BASED ON DATA FROM PRELIMINARY TITLE REPORT BY FIDELITY NATIONAL TITLE COMPANY, ORDER NO. 08-4032574, DATED JANUARY 29, 2009.
○ BASED ON DATA FROM PRELIMINARY TITLE REPORT BY LAWYERS TITLE COMPANY, ORDER NO. 39310626, DATED JANUARY 12, 2009.

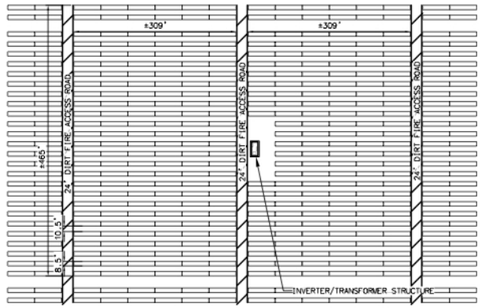
RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

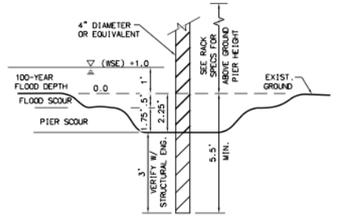
Major Use Permit Plot Plan

Photovoltaic Solar Farm

Figure 3B

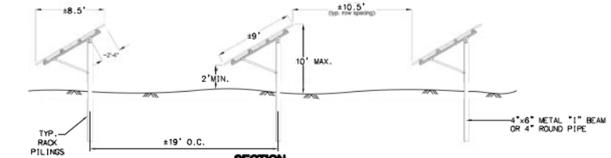


TYPICAL LAYOUT
SOLAR PANEL ARRAY FIELD
N.T.S.

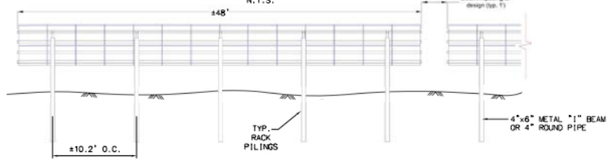


TYPICAL SECTION RACK PILINGS
N.T.S.

SOURCE: BORREGO VALLEY FLOOD MANAGEMENT REPORT DATED OCT. 1989

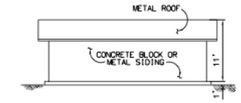


SECTION
SOLAR PANEL DETAIL
N.T.S.

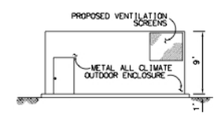


ELEVATION
SOLAR PANEL RACK DETAIL
N.T.S.

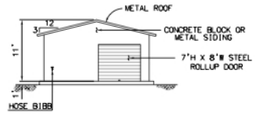
ARRANGEMENT/NUMBER OF PHOTOVOLTAIC PANELS, SPACING OF SUPPORTING RACKS AND RACK PILINGS ARE SHOWN TO ILLUSTRATE THE GENERAL CONFIGURATION OF THE PROPOSE SOLAR COLLECTION SYSTEM AND ARE SUBJECT TO MODIFICATIONS AT FINAL ENGINEERING DESIGN.



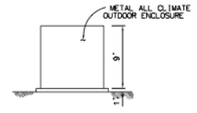
EAST ELEVATION
STORAGE STRUCTURE
N.T.S.



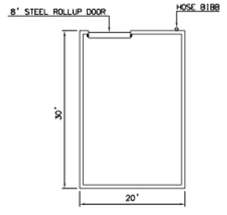
EAST ELEVATION
INVERTER/TRANSFORMER STRUCTURE
N.T.S.



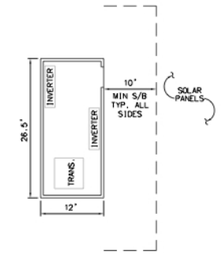
NORTH ELEVATION
STORAGE STRUCTURE
N.T.S.



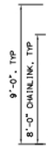
NORTH ELEVATION
INVERTER/TRANSFORMER STRUCTURE
N.T.S.



FLOOR PLAN
STORAGE BUILDING
N.T.S.

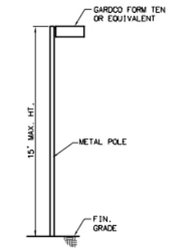


FLOOR PLAN
INVERTER/TRANSFORMER BUILDING
N.T.S.



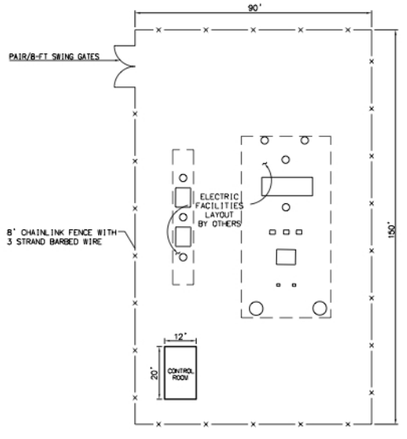
LINE POST @ 3 STRAND BARBED WIRE WRAPPED WITH CONCERTINA WIRE @ 45° ANGLE FACING OUT EVERY WHERE EXCEPT @ GATES

ELEVATION
BREAKAWAY FENCING DETAIL
N.T.S.

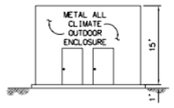


- 15' MAXIMUM HEIGHT
- 200 WATT MAXIMUM LOW PRESSURE SODIUM
- LOCATIONS:
  MAIN SITE ENTRY (1)
  ENTRANCE TO SUBSTATION (2)

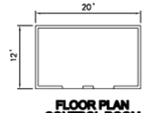
TYPICAL
MOTION- ACTIVATED
LPS SECURITY FLOOD LIGHT
N.T.S.



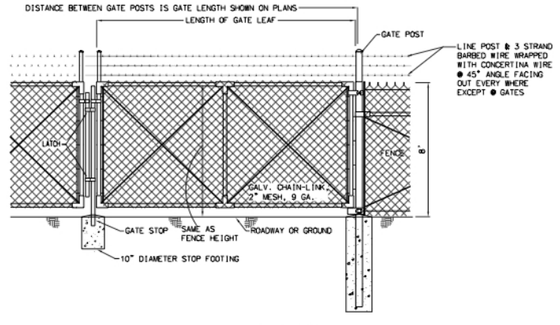
PRIVATE SUBSTATION
N.T.S.



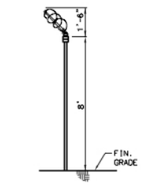
NORTH ELEVATION
CONTROL ROOM
N.T.S.



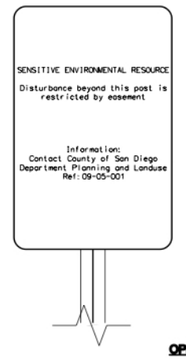
FLOOR PLAN
CONTROL ROOM
N.T.S.

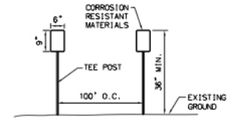


ELEVATION
HALF DOUBLE SWING GATE/FENCE
N.T.S.



SECTION
TYPICAL FENCE/GATE
8' CHAIN-LINKED FENCE WITH 3 STRAND BARBED WIRE WRAPPED WITH CONCERTINA WIRE





TYPICAL
OPEN SPACE SIGNAGE
N.T.S.

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Major Use Permit Plot Plan - Elevations / Details

Photovoltaic Solar Farm

Figure 3C

Photo 1: View looking northwest/northeast from southern property boundary of 53-acre lease parcel.

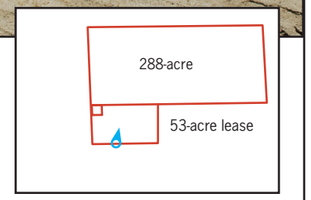
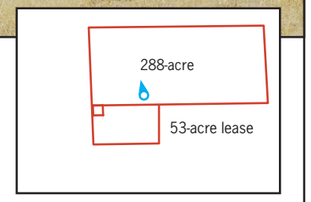


Photo 2: View looking north/northwest across 288-acre parcel.



RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Existing Onsite Conditions

Photovoltaic Solar Farm

Figure 4

View 1: View looking west from 288-acre parcel to existing adjacent agricultural operation (nursery).

View 2: View looking northeast/northwest to Project site from Borrego Valley Airport.

View 3: View looking east/southeast to existing Borrego Substation and SDG&E easement.

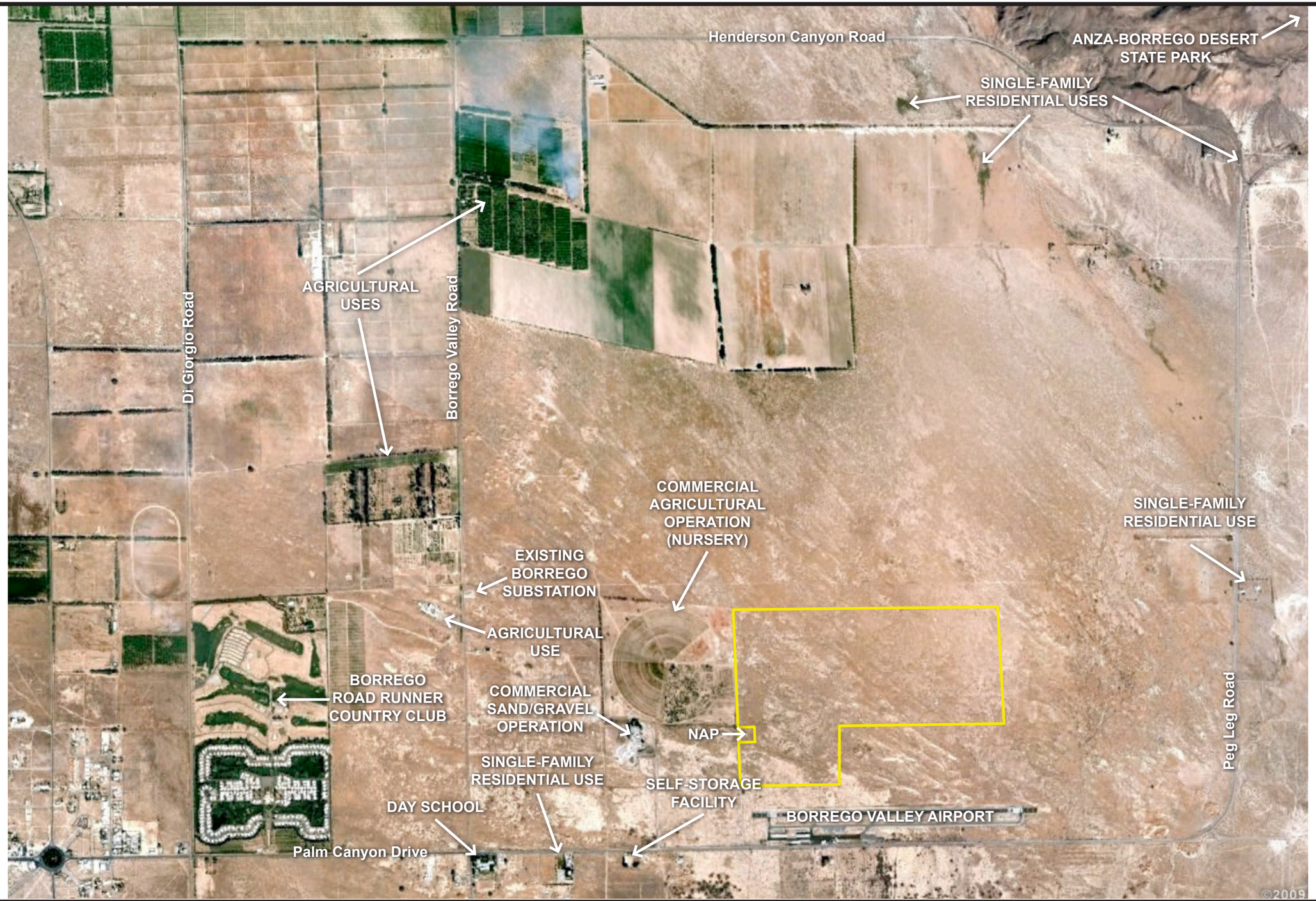
RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Existing Onsite / Offsite Conditions

Photovoltaic Solar Farm

Figure 5



Source: Google Earth, 2009.

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Project Boundary

NAP = Not A Part

N

Not to Scale

Surrounding Land Uses

Photovoltaic Solar Farm

Figure 6

View A: View of existing commercial sand and gravel operation west of Borrego Valley Road.

View B: View looking west to existing communications facilities from 53-acre lease parcel with adjacent commercial nursery.

View C: View of existing residential use looking south from Palm Canyon Drive.

View D: View of existing storage facility looking south from Palm Canyon Drive.

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Existing Views of Surrounding Land Uses

Photovoltaic Solar Farm

Figure 7

View E: View looking south from Palm Canyon Drive to existing school (Santa Rosa Community Day School).

View F: View looking northeast across Palm Canyon Drive to Borrego Valley Airport.

View G: View looking west to existing single-family residential use along Peg Leg Road.

View H: View looking east to existing single-family residential use along Peg Leg Road.

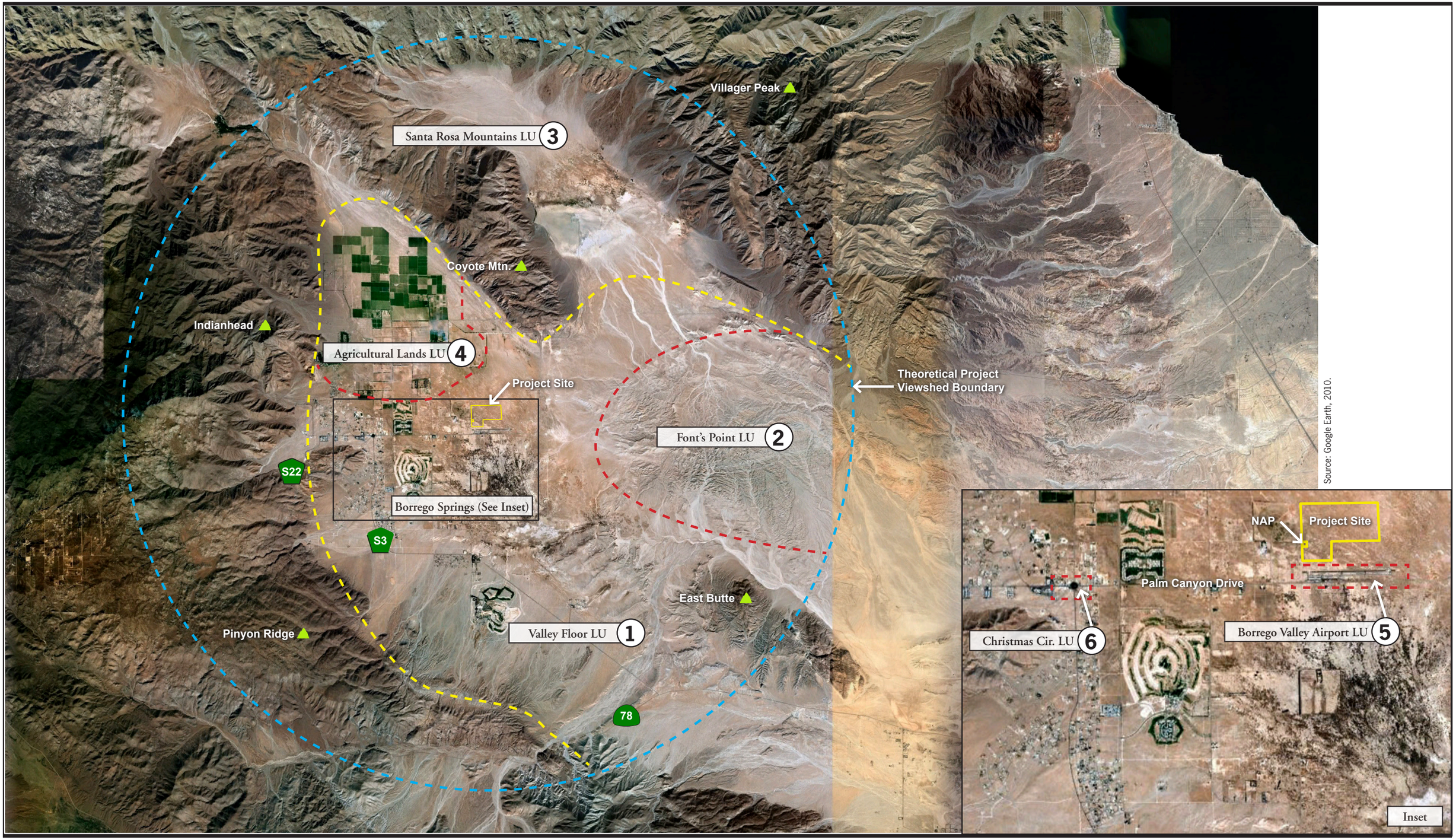
RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Existing Views of Surrounding Land Uses

Photovoltaic Solar Farm

Figure 8



RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

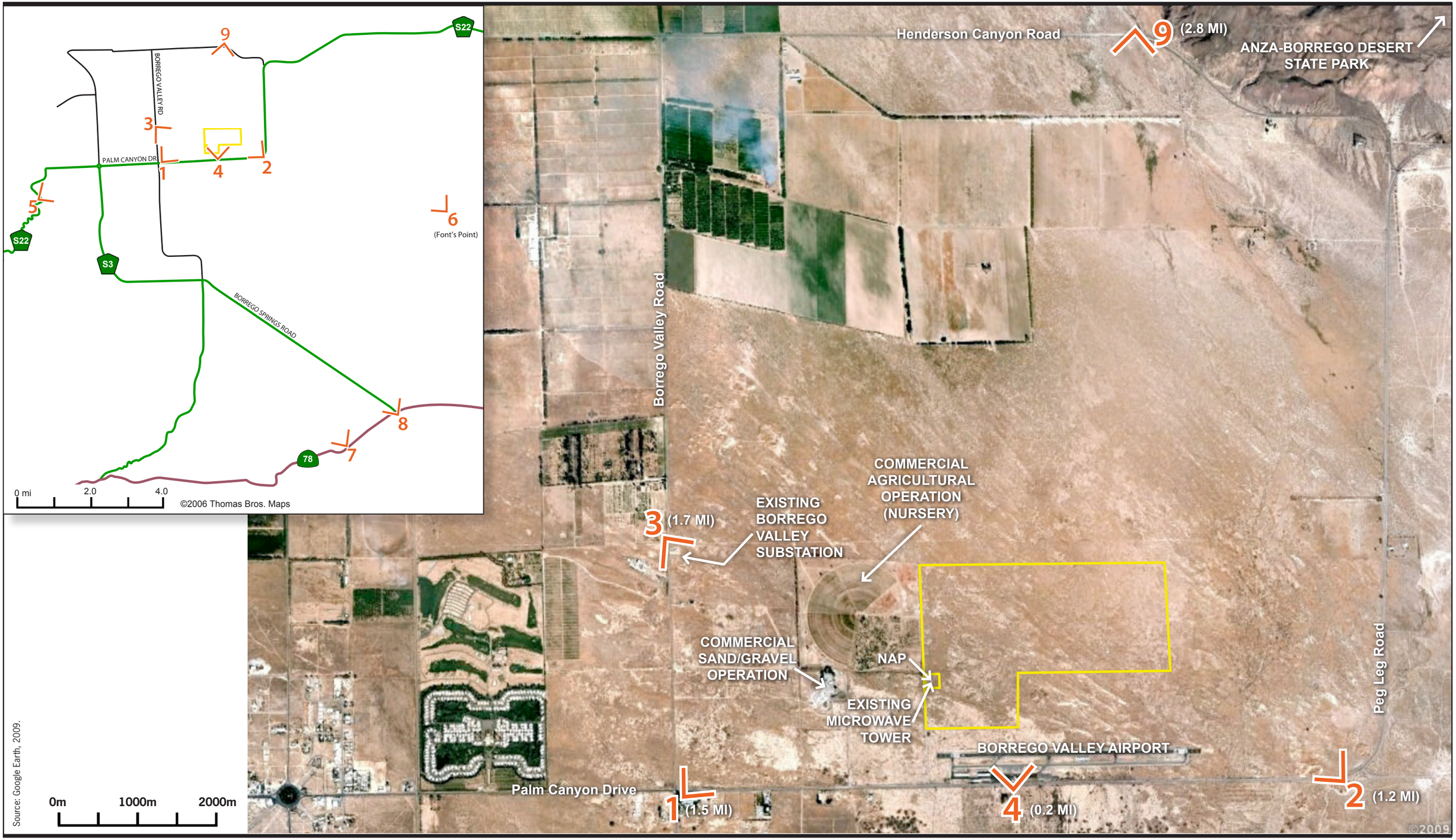
N

Not to Scale

Viewshed/Landscape Unit Location Map

Photovoltaic Solar Farm

Figure 9



RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

(X.X MI) Indicates approximate distance to Project Site

NAP Not A Part

Project Boundary

Viewshed

N

Key Viewpoint Location Map – Views 1-4 and 9

Photovoltaic Solar Farm

Figure 10A

Source: Google Earth, 2009.

0km 2.5km 5km

NAP

Palm Canyon Drive

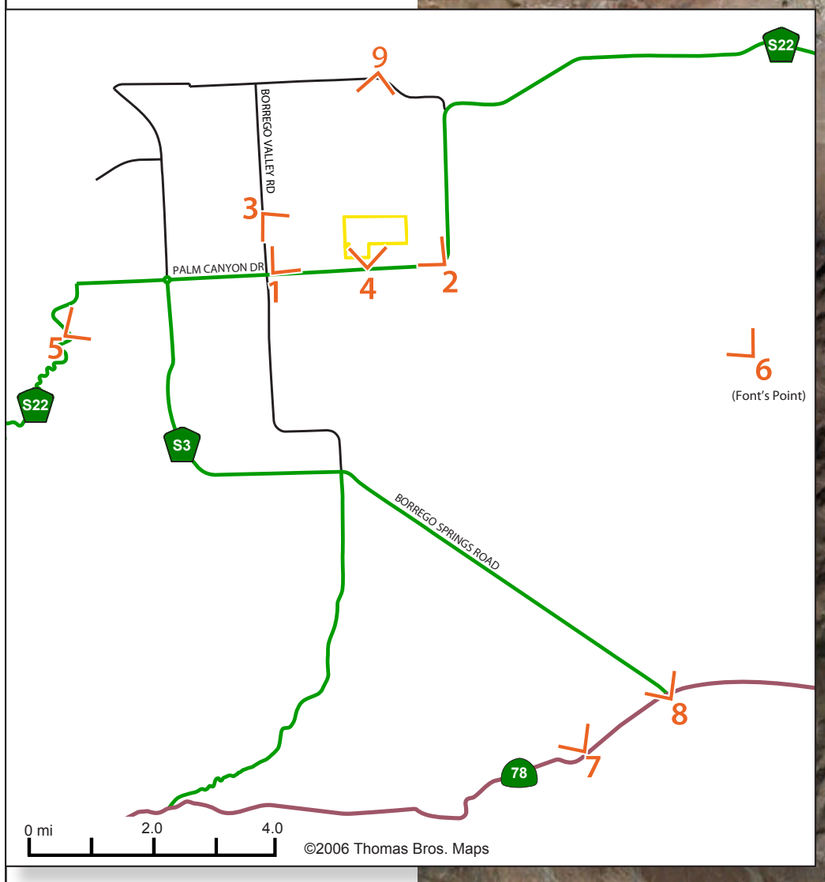
5 (4.7 MI)

6 (6.2 MI)

S22

S3

78



8 (8.5 MI)

78

7 (8.6 MI)

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

(X.X MI) Indicates approximate distance to Project Site

NAP Not A Part

Project Boundary

Viewshed

N

Key Viewpoint Location Map – Views 5-8

Photovoltaic Solar Farm

Figure 10B

View 1A: Existing View from Palm Canyon Drive Looking Northeast to the Project Site.

View 1B: Proposed View from Palm Canyon Drive Looking Northeast to the Project Site.

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Not to Scale

View 1 (Visual Simulation) - Palm Canyon Drive

Photovoltaic Solar Farm

Figure 11

View 2A: Existing View from the intersection of Old Springs Road and Palm Canyon Drive Looking Northwest to the Project Site.

View 2B: Proposed View from the intersection of Old Springs Road and Palm Canyon Drive Looking Northwest to the Project Site.

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Not to Scale

View 2 (Visual Simulation) - Palm Canyon Drive

Photovoltaic Solar Farm

Figure 12

View 3A: Existing View from Borrego Valley Road Looking Southeast to the Project Site from North of the Borrego Valley Substation.

View 3B: Proposed View from Borrego Valley Road Looking Southeast to the Project Site from North of the Borrego Valley Substation.

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Not to Scale

View 3 (Visual Simulation) - Borrego Valley Road / Borrego Substation

Photovoltaic Solar Farm

Figure 13

View 4A Existing View Looking North to the Project Site from the Borrego Valley Airport.

View 4B: Proposed View Looking North to the Project Site from the Borrego Valley Airport.

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

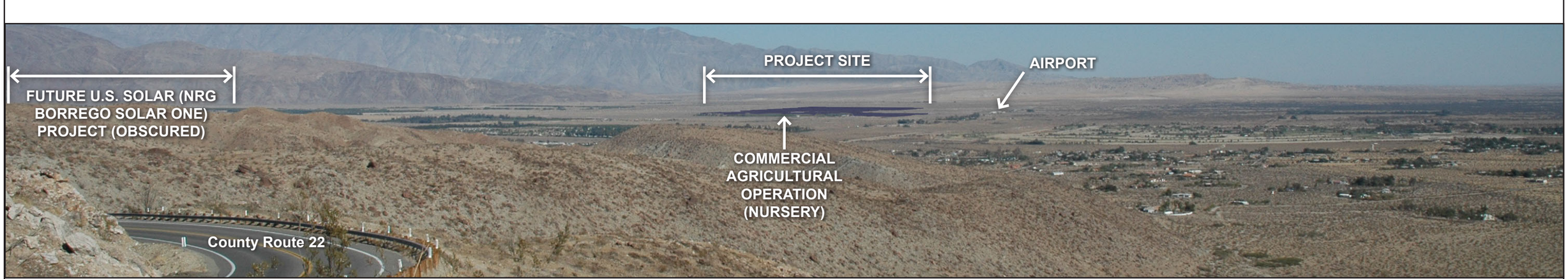
Not to Scale

View 4 (Visual Simulation) - Borrego Valley Airport

Photovoltaic Solar Farm

Figure 14

View 5A: Existing View Looking Northeast to the Project Site from County Route 22 (Montezuma Valley Road).



View 5B: Proposed View Looking Northeast to the Project Site from County Route 22 (Montezuma Valley Road).

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

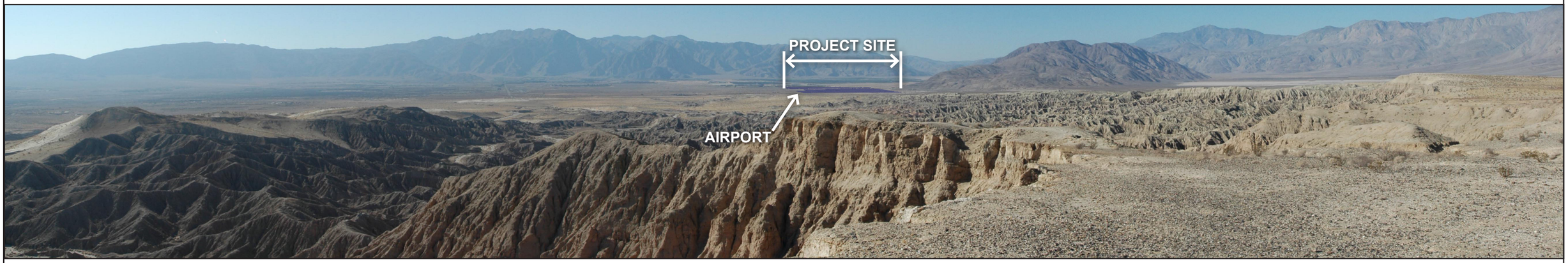
Not to Scale

View 5 (Visual Simulation) - County Route 22 (Montezuma Valley Road)

Photovoltaic Solar Farm

Figure 15

View 6A: Existing View Looking Northwest to the Project Site from Anza-Borrego Desert State Park / Font's Point.



View 6B: Proposed View Looking Northwest to the Project Site from Anza-Borrego Desert State Park / Font's Point.

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Not to Scale

View 6 (Visual Simulation) - Anza-Borrego Desert State Park / Font's Point

Photovoltaic Solar Farm

Figure 16

View 7: View to the Site Looking Northwest from Highway 78 (Distance: Approximately 8 Miles from Project Site)

View 8: View to the Site Looking Northwest from Highway 78 (Distance: Approximately 8.5 Miles from Project Site)

View 9: View to the Site Looking South from Henderson Canyon Road (Distance: Approximately 2 Miles from Project Site)

RBF CONSULTING

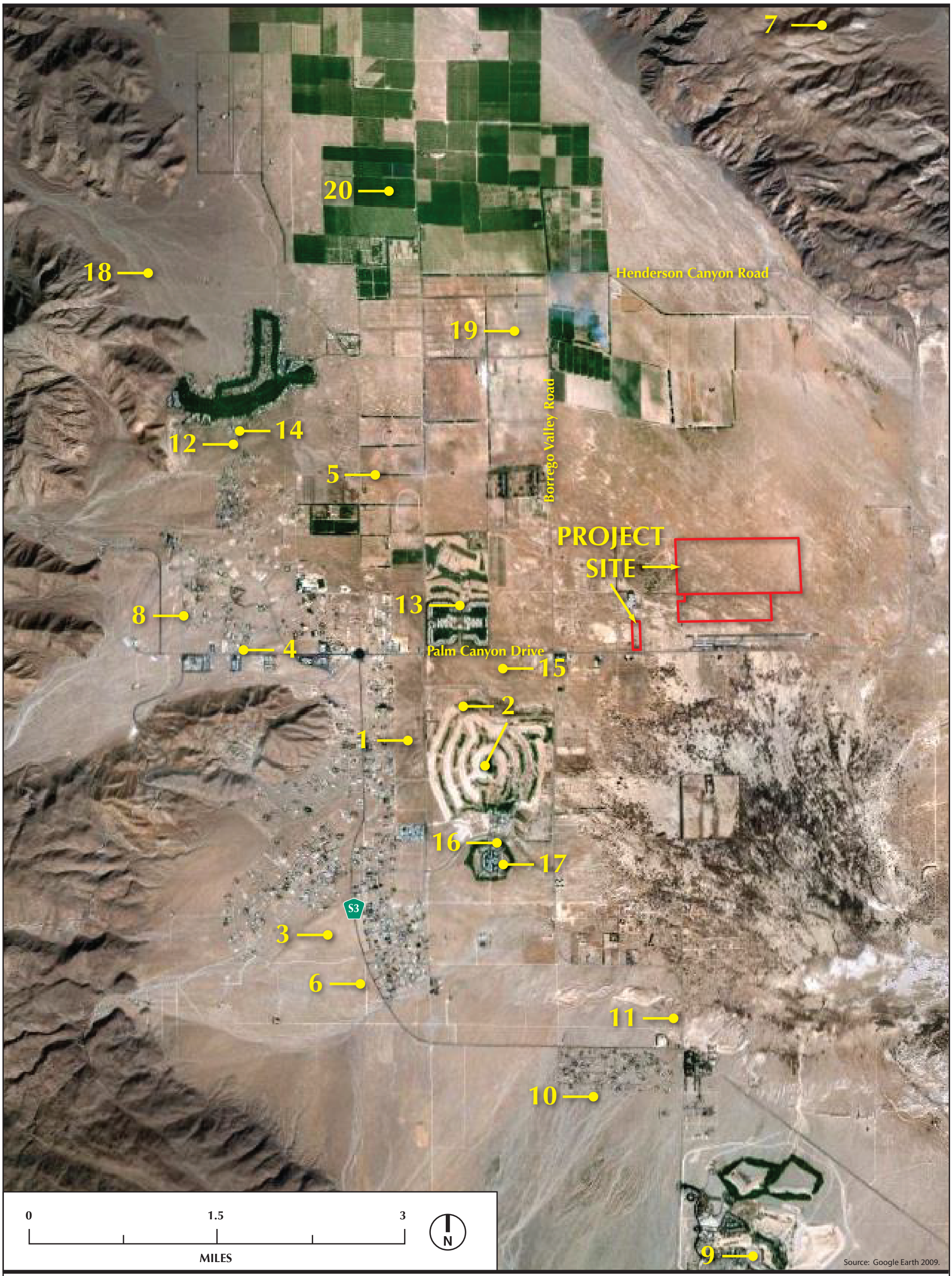
SDMac:25103821/3821_tabloid_landscape.indd

Not to Scale

Views 7, 8, 9 - Other Offsite Public Views

Photovoltaic Solar Farm

Figure 17



1 Borrego Springs Country Club TM
2 Borrego Country Club TM
3 Borrego Country Club Estates TM
4 Borrego Springs Senior Condominiums TM
5 Desert Diamond TPM
6 Bowen Jonas TPM
7 Borrego Sand and Rock Borrow Pit MUP, RECL PLAN
8 Borrego 50 Site Plan TM
9 Rams Hill MUP Min Dev 79-130-05 MOD/Deviation Montesoro Development Lot 1, 40-Lot Subdivision TM, MUP
10 Yaqui Pass GPA, SP, TM, REZ
11 Yaqui Pass TM
12 Miller TPM 4-Lot
13 Road Runner Club Pre-App TM MUP P99 MOD/Deviation
14 Rainshadow TPM
15 Borrego 138 TM, MUP
16 Bole TPM
17 Friestedt TM
18 Henderson Canyon TPM
19 U.S. Solar (NRG Borrego Solar One LLC), MUP
20 Avalon Borrego Solar LLC, MPA

RBF CONSULTING

SDMac:25103821/3821fig18.ai

Cumulative Projects Map

Photovoltaic Solar Farm

Figure 18

Existing View Looking Northeast to the Project Site from County Route 22 (Montezuma Valley Road).

Proposed View Looking Northeast to the Project Site from County Route 22 (Montezuma Valley Road).

RBF CONSULTING

SDMac:25103821/3821_tabloid_landscape.indd

Not to Scale

S-22 Montezuma Grade Photo Simulation

Photovoltaic Solar Farm

Figure 19